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DIRECTORATE OF DISTANCE EDUCATION

B.Sc (Psychology)

III SEMESTER

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EDUCATIONAL PSYCHOLOGY

SYLLABI BOOK MAPPING TABLE EDUCATIONAL PSYCHOLOGY

BLOCK IV : EDUCATION FOR ALL

BLOCK VI : LEARNING PROCESS, MANAGEMENT AND SPECIAL EDUCATION

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CONTENTS

UNIT-I - INTRODUCTION

NOTES

1.1 INTRODUCTION

In this unit, we are going to define Psychology. We are also going to discuss the nature, scope and importance of Educational Psychology and its significance to classroom teacher.

1.2 OBJECTIVES

After studying this unit, you will be able to:

- define Psychology
- discuss Effective Teaching Methods of Psychology.

1.3 PSYCHOLOGY

Etymologically the word Psychology means the study of soul on account of its derivation from the two Greek words - Psyche (soul) and logos (science of or study of). What is soul? How can it be studied? The inability to answer such questions leads some ancient Greek philosophers to defines Psychology as a 'study of mind'. Although the word mind was loss mysterious and vague than soul, it also raises the same question such as : What is mind? How can it be studied? etc and consequently this definition was also rejected. William James defined Psychology as the term soul and mind persuaded the Philosophers and Psychologists as the description and explanation of state of consciousness as such. By consciousness, the Psychologist meant the awareness of wakefulness. There were several interpretations of consciousness and this concept was rejected. The latest and modern concept of Psychology is interms of behaviour. J.B. Weston defined Psychology as the 'Science of Behaviour.' McDougal defines Psychology is a science which aims to give us better understanding and control of the behaviour of the organism as a whole. The above account of

the definitions regarding the subject Psychology clearly reveals that the meaning and concept of this subject has frequently changed its shape based on its dependence upon philosophical or scientific thinking. Commenting over this aspect Woodworth says, "First Psychology lost its soul, then its mind, then it lost its consciousness. It still has behaviour of sort". Although even at this final stage, there seems to be no agreement over a universal definition of Psychology, yet the definitions may be generally viewed in the light of behaviour. It may then be concluded that Psychology is a science of behaviour or a scientific study of behavioural activities and experiences.

1.3.1 Definition of Psychology

Psychologists define Psychology in various ways. The nature of Psychology is understood from the following definitions:

- **Crow and Crow -** 'Psychology is the study of human behaviour and human relationships'.
- **Woodworth - '**Psychology undertakes to make a scientific study of the individual considered as a unit as he really is in his dealings with other individuals and with the word'.

Check your progress

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1. Define Psychology.

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1.4 HISTORICAL DEVELOPMENT OF PSYCHOLOGY

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Till 19th century, Psychology was studied only as a branch of philosophy. When we look at the original meaning of the word psychology this will become clear. The word Psychology comes from the two Greek words, ‘Psyche’(soul) and ‘Logus’ (science). So, the root meaning of the word Psychology is that it is a science of soul. This is the traditional approach to the study of psychology. Traditional psychologists attempted to study the location of the soul. Its nature and its state are after the death of the individual. When we are not sure about the location of the soul, attempting to investigate its nature is impossible. According to **William McDougall,** who propounded the ‘**Hormic School of Psychology’** (Purposivism), every response of man is due to a purpose or inner motive called ‘instinct’. McDougall criticized behaviourism. He stated that response occurs, not always due to the occurrence of a stimulus. It is not necessary that we feel the desire to ear when we look at sweets. Desire to eat depends upon the hunger motive. Different motives result in different responses. According to McDougall, it is the instinct that motivates human behaviour. He further believes that an emotion is present in any instinctive activity. Each instinct associated with some emotions otherwise known as **‘sentiments’** become the centre of all activities. Without them no activity is possible. Though all of us have similar instincts, they get modified according to one’s environment. Our behaviour depends upon the modification of the instincts or our sentiments. In other words, sentiments are the motives of our behaviour and these sentiments may be analyzed into instincts and emotions. The instincts and emotions are the bases of human behaviour according to Hormic Psychology.

Titchner, who developed, the theory of '**Structuralism'** believed that mind is the basis of all human actions. According to him, there are three states of mind- Cognitive, Affective and Conative. The mind was regarded as consciousness and the ultimate elements of it are sensation, feelings and images. The nature and structure of consciousness can be studied through **introspection.** To introspect means to look within. **Psychology** thus came **to be defined as a science of consciousness.**

Behaviour psychologists like **J.B. Watson** of U.S.A and others questioned the validity of introspection and said that psychology should be an objective science. They bitterly criticized introspection as unreliable. They defined psychology as a science of behaviour. They tried to define behaviour in terms of stimulus and response, popularity known as S-R formula. For every stimulus, there is a response. The response to stimulus is behaviour. If you are pricked with a pin, there is a jerk of the body. 'Pricking' is the stimulus and the 'jerk' is the response or behaviour. A simple behaviour consists of the basic unit of behaviour i.e S.R. Any complex behaviour can be analyzed in terms of S-R units obtained sequentially. For behaviourists, **environment** is the determinant of one's response or behaviour and heredity has no influence what so ever. They also deny McDougall's theory of instincts. **Bernard**, the behaviourist states that we do not allow our instincts like fear, sex, acquisition, affiliation etc. to operate as they are; but we modify them in the midst of our social environment. Behaviourists also deny any role for mind in determining our behaviour. They argue that we talk because of the movement of our tongue and not because of thinking of functioning of the mind.

NOTES

As a revolt against behaviourism and structuralism, **Gestalt school of psychology** is emerged in 1912. Gestalists advocated that everything should be viewed as a whole and studied in its totality. The researches of Werthemer**, Kohler and Koffka** contributed a lot to the development of this school. The German word **'Gestalt'** refers to **'configuration', 'whole' or 'totality'.** We generally perceive the whole and not its parts. The 'whole' is not the addition of the parts but something more than that. When we purchase a bicycle, we only perceive it as a whole cycle and not as spokes, wheel, saddle, chain, mudguard etc. Sometimes, we fail to notice even some missing parts like bell or lock. So, according to Gestalists, **perception is unified and learning is** nothing but **reorganization of the field of perception.** Their main areas of investigation are perception and learning. To perceive an object or event, apart from our sensation of the object or event, our previous experiences about them are also called into play. Things are perceived in the canvas of our background experience. Gestalists advocate that human behaviour is based on one's perception and perception is influenced by our past experiences stored in our mind. For them, behaviour is physical as well as mental or cognitive. A particular stimulus does not elicit the same response from every one. People express different responses as per their previous experiences.

Then came the Viennese physician **Sigmund Freud** (1856-1939), on the scene with a bang proclaiming the school of psychology called **'Psycho-analysis'.** While structuralism gave emphasis for the conscious mind, psycho-analysis emphasized the role of unconscious mind in the actions of individuals. Since psycho-analysis goes deep into the subterranean level of the mind, this is also known as **depth psychology.** The other schools of psychology deal only with surface activities. But, psycho- analysis develops deep into the roots and springs of human behaviour. The

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unconscious mind is the seat of repressed tendencies and desires, not approved by the society. Sex plays an important role. According to Freud in the drama of human existence, sex is the villain of the peace. Freud holds that early childhood experiences determine the development of personality. He speaks of human personality made up of three major systems- **Id** (operating at unconscious level), **Ego** (operating at conscious and sub-conscious levels) and **Super Ego** (operating at conscious level).

Freud's disciples **Adler** and **Carl Jung** broke away from him and founded their own schools of psychology viz., **Individual Psychology and Analytical Psychology** respectively. Unlike Freud, Jung stresses past experiences of the individual. He thinks religion has a lot of therapeutic value. According to Adler, birth order of an individual in the family has much influence in determining one's way of life.

Piaget's Cognitive psychology, Humanistic psychology of **Carl Rogers, Maslow** and others have also significantly contributed to the growth of psychology and made it attain today the status of positive behavioural science. As a pure science, psychology is concerned with systematic study of behaviour and verification through experimentation. We can bring psychology under the category of 'Bio-Social Science'.

1.5 ROLE AND SCOPE OF PSYCHOLOGY

1.5.1 ROLE OF PSYCHOLOGY

- **Psychology at Work**
- **Psychology in Everyday Life**

1.5.1.1 Psychology at Work

Psychologists today work in a variety of settings where they can apply psychological principles for teaching and training people to cope

effectively with the problems of their lives. Often referred to as “human service areas”, they include clinical counseling, community, school and organizational psychology.

Clinical Psychologists specialize in helping clients with behavioural problems by providing therapy for various mental disorders and in cases of anxiety or fear, or with stresses at home or at work.

Counselling Psychologists work with persons who suffer from motivational and emotional problems. The problems of their clients are less serious than those of the clinical psychologists. A counseling psychologist may be involved in vocational rehabilitation programmes, or helping persons in making professional choices or in adjusting to new and difficult situations of life. Counseling psychologists work for public agencies such as mental health centres, hospitals, schools, colleges and universities.

Community Psychologists generally focus on problems related to community mental health. They work for mental health agencies, private organisatoions and state governments. They help the community and its institutions in addressing physical and mental health problems. In rural areas they may work to establish a mental health centre. In urban areas they may design a drug rehabilitation program. Many community psychologists also work with special populations such as the elderly or the physically or mentally challenged.

School Psychologists work in educational systems, and their roles vary according to the levels of their training. For example, some school psychologists only administer tests, whereas others also interpret test results to help students with their problems. They also help in the formulation of school polices. They facilitate communication between parents, teachers , administrators, and also provide teachers and parents with information about academic progress of a student.

Organisational Psychologists render valuable help in dealing with problems that the executives and employees of an organization tend to face in their respective roles. They provide organizations with consultancy services and organize skill training programmers in order to enhance their efficiency and effectiveness.

1.5.1.2 Psychology in Everyday Life

The discussion above may have clarified that psychology is not only a subject that satisfies some of the curiosities of our mind about human nature, but it is also a subject that can offer solutions to a variety of problems. These may range from purely personal (for example, a daughter having to face an alcoholic father or a mother dealing with a problem child) to those that may be rooted within the family set up (for example, lack of communication and interaction among family members) or in a larger group or community setting (for example terrorist groups or socially isolated communities) or may have national or international dimensions. Problems related to education, health environment, social justice, women development, intergroup relations, etc are pervasive. While the solutions of these problems may involve political, economic and social reforms, interventions at the individual levels are also needed in order to change. Many of these problems are largely of psychological nature and they result from our unhealthy thinking, negative attitude towards people and self and undesirable patterns of behavior. A psychological analysis of these problems helps both in having a deeper understanding of these problems and also in finding the effective solutions. Thus the knowledge of psychology is quite useful in our everyday life, and is rewarding from personal as well as social points of view.

1.5.2 SCOPE OF PSYCHOLOGY

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The field of psychology can be understood by various subfields of psychology making an attempt in meeting the goals of psychology.

1. Physiological Psychology:

In the most fundamental sense, human beings are biological organisms. Physiological functions and the structure of our body work together to influence our behaviour. Biopsychology is the branch that specializes in the area. Bio-psychologists may examine the ways in which specific sites in the brain which are related to disorders such as Parkinson's disease or they may try to determine how our sensations are related to our behaviour.

2. Developmental Psychology:

Here the studies are with respect to how people grow and change throughout their life from prenatal stages, through childhood, adulthood and old age. Developmental psychologists work in a variety of settings like colleges, schools, healthcare centres, business centres, government and non-profit organizations, etc. They are also very much involved in studies of the disturbed children and advising parents about helping such children.

3. Personality Psychology:

This branch helps to explain both consistency and change in a person's behaviour over time, from birth till the end of life through the influence of parents, siblings, playmates, school, society and culture. It also studies the individual traits that differentiate the behaviour of one person from that of another person.

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4. Health Psychology:

This explores the relations between the psychological factors and physical ailments and disease. Health psychologists focus on health maintenance and promotion of behaviour related to good health such as exercise, health habits and discouraging unhealthy behaviours like smoking, drug abuse and alcoholism.Health psychologists work in healthcare setting and also in colleges and universities where they conduct research. They analyse and attempt to improve the healthcare system and formulate health policies.

5. Clinical Psychology:

It deals with the assessment and intervention of abnormal behaviour. As some observe and believe that psychological disorders arise from a person's unresolved conflicts and unconscious motives, others maintain that some of these patterns are merely learned responses, which can be unlearned with training, still others are contend with the knowledge of thinking that there are biological basis to certain psychological disorders, especially the more serious ones. Clinical psychologists are employed in hospitals, clinics and private practice. They often work closely with other specialists in the field of mental health.

6. Counselling Psychology:

This focuses primarily on educational, social and career adjustment problems. Counselling psychologists advise students on effective study habits and the kinds of job they might be best suited for, and provide help concerned with mild problems of social nature and strengthen healthy lifestyle, economical and emotional adjustments.

They make use of tests to measure aptitudes, interests and personality characteristics. They also do marriage and family counselling, provide strategies to improve family relations.

7. Educational Psychology:

Educational psychologists are concerned with all the concepts of education. This includes the study of motivation, intelligence, personality, use of rewards and punishments, size of the class, expectations, the personality traits and the effectiveness of the teacher, the student-teacher relationship, the attitudes, etc. It is also concerned with designing tests to evaluate student performance. They also help in designing the curriculum to make learning more interesting and enjoyable to children.

Educational psychology is used in elementary and secondary schools, planning and supervising special education, training teachers, counselling students having problems, assessing students with learning difficulties such as poor writing and reading skills and lack of concentration.

8. Social Psychology:

This studies the effect of society on the thoughts, feelings and actions of people. Our behaviour is not only the result of just our personality and predisposition. Social and environmental factors affect the way we think, say and do. Social psychologists conduct experiments to determine the effects of various groups, group pressures and influence on behaviour.

They investigate on the effects of propaganda, persuation, conformity, conflict, integration, race, prejudice and aggression. These investigations explain many incidents that would otherwise be difficult to understand.

Social psychologists work largely in colleges and universities and also other organizations.

1.6. EFFECTIVE TEACHING METHODS OF PSYCHOLOGY

Educational Psychology employs various methods to improve teaching-learning process in the classroom. It uses methods to gather facts about the nature of children and how they learn. It employs methods to know how they develop. It employ methods to know how child's personalities like learning, social adjustment, or skill grows from the elementary stage to a complex one. It studies how a group of children passes through the several stages of growth and development. As educational psychology is an applied branch of general psychology, it makes use of methods of general psychology. Some of the most commonly used methods of psychology or educational psychology are:

- Introspection method
- Observation method
- Interview method
- Experimental method
- Case-study method
- Differential method

Check your progress

Notes: a) Write your answer in the space given below

b) Compare your answer with the one given at the end of the unit.

2. Mention the methods of psychology

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1.7. ANSWERS TO CHECK YOUR PROGRESS

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1. Psychology defined first as the study of soul in its history of evolution, it has been known progressively as the study of mind, study of consciousness and finally as the study of behaviour.
2. Most commonly used methods of psychology are introspection method, observational method, experimental method, differential method, case-study method, interview method and psychoanalytic method.

1.8. LET US SUM UP

Psychology defined first as the study of soul in its history of evolution, it has been known progressively as the study of mind, study of consciousness and finally as the study of behaviour. Psychology and Education are related intimately. Psychology studies the behaviour as it grows and evolves; education deals with modification of behaviour.

Study of behaviour in Psychology can be made with the help of a variety of methods. Introspection method is a sort of self-observation in which one perceives analyses and report one's own feelings. Observation method provides a way of studying the behaviour of an individual in most natural conditions. Experimental method is considered as most scientific and objective method for studying behaviour. Differential method is a method based on individual differences. Case study is the study of an individual case. Interview method is a method for the investigation of behaviour by getting information directly from the subject about his behaviour in face-to-face contact or relationship. Psychoanalytic method is the method of analysis of mind.

NOTES

1.9 KEY WORDS

PSYCHOLOGY, EDUCATIONAL PSYCHOLOGY

1.10 SELF ASSESSMENT QUESTION AND EXERCISE

1. How will you relate Psychology and Education?
2. Define Psychology.
3. List out the Effective Teaching Methods of Psychology
4. Elucidate the Role and Scope of Psychology.

1.11. SUGGESTED READINGS

- Aggarwal, J.C.(2007), *Essentials of Educational Psychology***,** Delhi: Vikas Publishing House Private limited.
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UNIT-II- EDUCATIONAL PSYCHOLOGY

NOTES

2.1 INTRODUCTION

In this unit, we are going to define Education Psychology. We are also going to discuss the nature, scope of Educational Psychology and its importance of educational psychology for the teacher.

2.2 OBJECTIVES

After studying this unit, you will be able to:

- define Education Psychology
- describe the nature of Educational Psychology
- describe the scope of Educational Psychology
- explain the importance of educational psychology for the teacher.

2.3 EDUCATIONAL PSYCHOLOGY

2.3.1. Definition and concept of Educational Psychology

Educational psychology is defined as the branch of psychology which is concerned with psychological researches as applied to any or all aspects of educational processes and practices. It is in relation with problems like learning, teaching and training. Classroom is the laboratory for the educational psychologists. By applying the principles and laws of psychology in educational situations, Educational Psychology tries to solve the different problems faced in the educative process. So as to make to more effective and efficient, (says Kolesnik, the Russian Psychologist) Psychology is the science of behaviour. Education is the deliberate process of modifying one's behaviour (knowledge, skills and attitude) through a sequence of systematically planned experiences to achieve the predetermined goals and objectives (Redden). Therefore, educational

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psychology could be considered as the science of modifying the learner's behaviour so as to refine his/her personality and make him/her an efficient and responsible citizen.

2.4 NATURE OF EDUCATIONAL PSYCHOLOGY

Educational Psychology has made tremendous advancement and gradually established itself as an independent study. Most of the educational problems come under its purview. Child education, diagnostic and remedial education, education for the gifted and handicapped, factors affecting learning, principles of evaluation, etc. bear proof to the claim that educational psychology is a special field of study. The study of classroom climate, techniques of behaviour modification, programmed learning, micro-teaching, software and hardware approaches and computer assisted instruction are all the areas developed by the educational psychologists aimed at improving the interaction between the teacher and the taught. Advanced techniques of instruction are through and through psychological by nature.

2.5 SCOPE OF EDUCATIONAL PSYCHOLOGY

As **Blair, Jones and Simpson** says that,, educational philosophy is primarily concerned with the question of what should be done and educational psychology attempts to answer the question of what should be done and how it can be done. Educational psychology for most part is interested in means rather than ends as to the scope of educational psychology. **Kolesnik** mentions the following problems which are dealt by educational psychologists:

- Differences among students

- Motivation
- Methods of instruction
- Evaluation
- Classroom management
- Mental health
- Character formation

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H.C. Lindgren suggests that the subject-matter of educational psychology revolves around three areas:

a) The learner
b) The learning process
c) The learning situation

In the first area, the learner is included the study of abilities, needs, life-goals, self-concept, etc. of the individual learner as well as the differences that exist among different individuals. This area also includes the study of the development of the pupil, the environmental influences on his personality, the problems of his mental health etc. In the second area, i.e. in the learning process, the nature, process and factors of learning are studied. In the third area, the learning situation, such factors as classroom management, discipline, techniques for teaching exceptional children, guidance and counseling etc. are studied. The teacher himself is very important in the total learning situation. Therefore, the psychology of being a teacher (his motivations, conflicts, effectiveness, professional growth, his mental health etc.) is also included in the scope of educational psychology.

Garrison et al. recognizes the following as major divisions of educational psychology

- The child and his development: The course of development, nature of intelligence, language and thinking, socialization and its role etc.
- Learning and educative process: Learning and motivation, the learning of skills, knowledge, understanding and problem solving, character development etc.
- Evaluating Pupil-Growth: Methods of pupil-evaluation, studying the individual child, learning difficulties at school and evaluating the results of instruction etc.
- Guiding the child: Personality integration, adjustment problems of the child and pupil-teacher relations etc.
- In short, speaking with E.A. Peal, it might be said that educational psychology broadly deals with the nature of learning, the growth of human personality, the differences between individuals and the study of the person in relation to society.

2.6 RELATIONSHIP BETWEEN PSYCHOLOGY AND EDUCATION

Education and Psychology are related intimately. Education deals with modification of behaviour and Psychology studies the behaviour as it grows and evolves. You cannot modify the behaviour without studying the behaviour and its peculiarities. As such both are inter-related and dependent. At many places Psychology leads the process of dependent. It tells:

- About needs and aspiration of child and hence which is the best curriculum for the child?
- What are the methods to be adopted to motivate and teach?
- How best is to carry on the process of Education?

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Psychology thus is a great boon to education and it is because of the contribution of Psychology that education has leased to be a rigid process as it used to be in good old days. It is a dynamic process and saying of Pestalozzi 'Psychologist education' tells us that both education and psychology are intimately related.

Check your progress

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1. Define Educational psychology.

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2. What is the relationship between Psychology and Education?

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2.7 ANSWERS TO CHECK YOUR PROGRESS

1. Educational psychology is defined as the branch of psychology which is concerned with psychological researches as applied to any or all aspects of educational processes and practices. It is in relation to problems like learning, teaching and training.
2. Psychology and Education are related intimately. Psychology studies the behaviour as it grows and evolves education deals with modification of behaviour. We cannot modify the behaviour without studying the behaviour and its peculiarities. Hence, both are inter-related and dependent.

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2.8 LET US SUM UP

Educational Psychology as one of the branches of Psychology tries to study the behaviour of the learner in relation to his educational environment. Most of the definitions centre around the fact that educational psychology as a specialized branch of psychology concerns itself with suggesting ways and means of improving the processes and products of education, enabling the teacher to teach effectively and the learners to learn effectively by putting in the minimum effort. Educational Psychology is scientific in nature. It has an extensive scope. It helps the teachers in accomplishing cultural and professional aims. Also, it helps the teachers to understand the learner, learning process and learning situation.

2.9 KEY WORDS

EDUCATIONAL PSYCHOLOGY, CLASS ROOM

2.10 SELF ASSESSMENT QUESTION AND EXERCISE

1. How will you Differentiate General Psychology from Educational Psychology.
2. Define Education Psychology.
3. Write Short note on Relationship between Psychology and Education
4. Discuss the nature and scope of Educational Psychology.

2.11. SUGGESTED READINGS

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- Aggarwal, J.C.(2007), *Essentials of Educational Psychology***,** Delhi: Vikas Publishing House Private limited.
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UNIT-III - NATURE OF EDUCATIONAL PSYCHOLOGY

3.1 INTRODUCTION

In this unit, we are going to discuss about the nature, scope of Educational Psychology.

3.2 OBJECTIVES

After studying this unit, you will be able to:

- describe the nature of Education Psychology
- describe the scope of Education Psychology
- explain the importance of education psychology for the teacher.

3.3 EDUCATIONAL PSYCHOLOGY

Educational psychology is the branch of psychology in which the findings of psychology are applied in the field of education. It is the scientific study of human behaviour in educational setting. According to Charles. E. Skinner, "Educational psychology deals with the behaviour of human beings in educational situations".

Thus educational psychology is a behavioural science with two main references– human behaviour and education.

In the words of E.A. Peel, "Educational Psychology is the science of Education".

Education by all means is an attempt to mould and shape the behaviour of the pupil. It aims to produce desirable changes in him for the all-round development of his personality.

The essential knowledge and skill to do this job satisfactorily is supplied by Educational Psychology. In the words of E.A. Peel, "Educational psychology helps the teacher to understand the development of his pupils, the range and limits of their capacities, the processes by which they learn and their social relationships."

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Check your progress

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1. Short note on Educational psychology.

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3.4 NATURE OF EDUCATIONAL PSYCHOLOGY

Its nature is scientific as it has been accepted that it is a Science of Education. We can summarize the nature of Educational Psychology in the following ways:

- **Educational Psychology is a science**. (Science is a branch of study concerned with observation of facts and establishment of verifiable general laws. Science employs certain objective methods for the collection of data. It has its objectives of understanding, explaining, predicting and control of facts.) Like any other science, educational psychology has also developed objective methods of collection of data. It also aims at understanding, predicting and controlling human behaviour.
- **Educational Psychology is a natural science.** An educational psychologist conducts his investigations, gathers his data and

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reaches his conclusions in exactly the same manner as physicist or the biologist.

- **Educational psychology is a social science.** Like the sociologist, anthropologist, economist or political scientist, the educational psychologist studies human beings and their sociability.
- **Educational psychology is a developing or growing science.** It is concerned with new researches. As research findings accumulate, educational psychologists get better insight into the child's nature and behaviour.

Thus, educational psychology is an applied, positive, social, specific and practical science. While general science deals with behaviour of the individuals in various spheres, educational psychology studies the behaviour of the individual in educational sphere only.

3.5 SCOPE OF EDUCATIONAL PSYCHOLOGY

The scope of educational psychology is ever-growing due to constant researches in this field. The following factors will indicate the scope of educational psychology:

- **The Learner.** The subject-matter of educational psychology is knitted around the learner. Therefore, the need of knowing the learner and the techniques of knowing him well is vital. The topics include – the innate abilities and capacities of the individuals, individual differences and their measurements, the overt, covert, conscious as well as unconscious behaviour of the learner, the characteristics of his growth and development in each stage beginning from childhood to adulthood.
- **The Learning Experiences.** Educational Psychology helps in deciding what learning experiences are desirable, at what stage

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of the growth and development of the learner, so that these experiences can be acquired with a greater ease and satisfaction.

- **Learning process:** After knowing the learner and deciding what learning experiences are to be provided, Educational Psychology moves on to the laws, principles and theories of learning. Other items in the learning process are remembering and forgetting, perceiving, concept formation, thinking and reasoning, problem solving, transfer of learning, ways and means of effective learning etc.
- **Learning Situation or Environment.** Here we deal with the environmental factors and learning situations which come midway between the learner and the teacher. Topics like classroom climate and group dynamics, techniques and aids that facilitate learning and evaluation, techniques and practices, guidance and counselling etc. for the smooth functioning of the teaching-learning process.
- **The Teacher:** The teacher is a potent force is any scheme of teaching and learning process. It discusses the role of the teacher. It emphasizes the need of **'knowing thyself'**for a teacher to play his role properly in the process of education. His conflicts, motivation, anxiety, adjustment, level of aspiration etc. It throws light on the essential personality traits, interests, aptitudes, the characteristics of effective teaching etc so as to inspire him for becoming a successful teacher.

3.6 METHODS OF EDUCATIONAL PSYCHOLOGY

Educational Psychology employs various methods to improve teaching-learning process in the classroom. It uses methods to gather facts about the

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nature of children and how they learn. It employs methods to know how they develop. As educational psychology is an applied branch of general psychology, it makes use of the methods of general psychology. Some of the most commonly used methods of psychology or educational psychology are:

- Introspection method
- Observation method
- Interview method
- Experimental method
- Case-study method
- Differential method

3.6.1. Introspection Method

Introspection is composed of two words 'intro' and 'aspection'. 'Intro' means 'within or 'inward' and 'aspection' means 'looking'. Hence, it implies self-observation or looking 'within' or looking 'inward' to experience one's own mental state. It is a process to examine one's own mental process of thought, feeling and motives. An individual looks within, observes, analyses and reports his own feelings. Let us explain this process with the help of an example. Suppose, you are happy and in this state of happiness you look within yourself. It is said that you are introspecting your own mental feelings and examining what is going on in your mental process in the state of happiness. Similarly, you may introspect in state of anger or fear etc. Introspection is also defined as the notice which the mind takes of itself. Introspection is the oldest method which was formerly used by philosophers. This method was developed by structuralists in

psychology who defined psychology as the study of conscious experience of the individual.

3.6.2. Observation Method

Observation is one of the oldest techniques that man has made use of. It is defined as seeing things as they are in their natural setting. It does not mean seeing things as they were or as they should be. Observation deals with the overt behaviour of persons in appropriate situations. Observation has been defined as 'measurement without instruments'. In education, observation is the most commonly employed all measurement techniques.

Types of observation

Observation is of following types:

- Participant observation
- Non-participant observation
- Structured observation
- Unstructured observation

Participant Observation: Here the observer plays a double role. He/she becomes by and large a member of the group under observation and shares the situation as a visiting stranger, an eager learner and an attentive listener.

Non-participant Observation: This is used with such groups as infants, children of abnormal persons. The observer takes such a position as he is able to observe in detail the behaviour of the individual under observation. The position of the observer is least disturbing to the subject under study.

Structured Observation: Structured observation starts with relatively specific formulations. The observer in advance set up categories in terms

of which he wishes to analyze the problem. The observer always keeps in view

- A frame of reference
- Time units
- Limits of an act

Unstructured Observation: It mainly takes the form of participant observation. The observer takes the role of a member of the group.

3.6.3. Interview Method

Interview method provides an opportunity for getting information directly from the subject about his behaviour in fact to-face contact or relationship. Here the subject and the psychologist both engage themselves in the mutual exchange of idea as and information. For this purpose, the interviewer makes an attempt to fix a fact – to - face appointment with the person whose behaviour he wants to investigate. The major steps to be followed in this method can be listed as below:

- Preparation for the Interview
- Taking an Interview
- Closure of the interview.

3.6.4. Experimental Method

It is the most objective and scientific method for studying behaviour. The investigator studies the cause and effect relationship regarding human behaviour by performing experiments. Experiment may be conducted in a laboratory or a classroom or other field situations.

Types of Experimental Method

Experimental Method is of following types

- Control Test Method
- Control Group Method
- Rotation Method.

Control Test Method: In this method, we try to differentiate by observing the performance under different conditions. First we observe under normal conditions and then again with one condition changed. There is no need of having two different groups of subjects for the experiment. Only the measures can be taken several times under different conditions.

Control group Method: Control test method possesses a serious drawback known as positive practice effect. In control group method, we can minimize the practice effect. Here two separate groups, known as experimental group and control groups are taken. They are equated or matched on various traits like age, sex, intelligence and other personality characteristics.

Rotation Method: This method consists of presenting two or more stimulating situations to the experimental subjects in as many sequences as necessary to control the serial effects of fatigue or practice.

3.6.5. Case Study Method

A case study is the study of an individual case. Case study method is usually used for studying the behaviour problems of a maladjusted or deviant individual. Various steps involved in case study method are

- Determination of the status of the phenomenon under investigation through direct observation or measurement.

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- Determination of the most probable antecedents of the case
- Formulation of a definite hypothesis or a set of hypotheses through a knowledge of similar cases.
- Verification of the hypothesis
- Remedial steps
- Follow up of the case.

There are three types of case studies:

- Case studies of individuals
- Case studies of institutions.
- Case studies of communities.

3.6.6 Differential Method

Differential method is the method of studying differences within the same individual or between individuals in different groups. In this method, there are four types:

Types of differential methods are:

- Correlation Method
- Longitudinal Method
- Field Survey Method
- Cross-Sectional Method
- **In the correlation method,** the psychologist takes people as they are and studies what they usually do, without changing the conditions under which they respond to the tests or perform the desired tasks.

- **In the field survey method, t**he differences with regard to a particular trait pattern or characteristics among the individuals are discovered by conducting the field survey and taking adequate samples, from the studied population.

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- **In the longitudinal method, t**he differences in an individual or group of some individuals are studied over a long span of time.
- **In cross sectional method,** we take many individuals and study them simultaneously.

Check your progress

Notes: a) Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

2. What are the Scope Educational psychology.

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3.7 ANSWERS TO CHECK YOUR PROGRESS

1. Educational psychology is defined as the branch of psychology which is concerned with psychological researches as applied to any or all aspects of educational processes and practices. It is in relation to problems like learning, teaching and training.
2. The scope of Educational Psychologies are The Learner, The Learning Experiences, Learning process, Learning Situation or Environment, The Teacher

3.8 LET US SUM UP

Educational psychology is that branch of psychology in which the findings of psychology are applied in the field of education. It is the scientific study of human behaviour in educational setting. The essential knowledge and skill to do this job satisfactorily is supplied by Educational Psychology. In

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the words of E.A. Peel, "Educational psychology helps the teacher to understand the development of his pupils, the range and limits of their capacities, the processes by which they learn and their social relationships." Educational psychology is an applied, positive, social, specific and practical science. While general science deals with behaviour of the individuals in various spheres, educational psychology studies the behaviour of the individual in educational sphere only.

3.9 KEY WORDS

EDUCATIONAL PSYCHOLOGY, INTROSPECTION METHOD

3.10 SELF ASSESSMENT QUESTION AND EXERCISE

5. State the Scope of Education Psychology in your point of view.
6. Discuss the nature and scope of Educational Psychology.

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UNIT IV - HUMAN GROWTH AND DEVELOPMENT

4.1 INTRODUCTION

In this unit, we shall discuss the concept and principles of human growth and development, why their systematic study is needed and how the teacher can facilitate growth and development during adolescence. We shall also discuss, in brief, various stages of development. You will also study the role of the teacher in facilitating the growth and development of school going children. You can observe the growth of your students over a period of a few years.

4.2 OBJECTIVES

This unit is meant to help you learn the concept, the broad principles and the stages of growth and development.

After going through this unit, you shall be able to:

- differentiate between growth and development
- describe the stages of human growth and development

4.3 CONCEPT OF GROWTH AND DEVELOPMENT

The terms growth and development are often used interchangeably Actually they are conceptually different. Neither growth nor development takes place all by itself. Growth refers to quantitative changes in size which include physical changes in height, weight, size, internal organs etc. As an individual develops old features like baby fat, hair and teeth etc. disappear and new features like facial hair etc are acquired. When maturity come the

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second set of teeth, primary and secondary sex characteristics etc. appear similar changes occur in all aspects of the personality.

During infancy and childhood the body steadily becomes larger taller and heavier. To designate this change the term growth is used. Growth involves changes in body proportions as well as in overall stature and weight. The term growth thus indicates an increase in bodily dimensions. But the rate of growth differs from one part of the body to the other.

Development, by contrast, refers to qualitative changes taking place simultaneously with quantitative changes of growth. It may be defined as a progressive series of orderly, coherent changes. The term progressive signifies that changes are directional, that they lead forward rather than backward. Orderly and coherent suggest that there is a definite relationship between the changes taking place and those that proceed or will follow them. Development represents change in an organism from its origin to its death but more particularly the progressive changes which take place from origin to maturity.

Thus, development may be explained as the series of overall changes in an individual due to the emergence of modified structure and functions that are outcome of the interactions and exchange between the organism and its environment.

4.3.1. Meaning of the term Growth

In the strict sense of terminology the two terms growth and development have different meanings. The term 'growth' is used purely in the physical sense. It generally refers to increase in size, length, height and weight. Changes in the quantitative aspects, which could be objectively observed and measured, come into the domain of growth. Growth is one of the

components of the developmental process. In a sense, development in its quantitative aspect is termed as growth.

4.3.2. Meaning of 'Development'

'Development' implies the overall change in shape, form or structure resulting in improved working or functioning. It indicates the changes in the quality or character rather than in quantitative aspects. Development is the result of growth, maturation and learning.

Check your Progress

Notes: a) Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Write the meaning of Development.

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4.4 GENERAL PRINCIPLES OF GROWTH AND DEVELOPMENT

4.4.1. Development is a product of interaction

Development is a process which is the result of constant interchange of energy within the organism and his environment. Thus hereditary forces interact with environmental forces and the process of development goes further. These two forces are so closely interacted that is very difficult to isolate the contribution of either of them. The contribution of gene may be

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10% as compared to 90% contribution of environment in the process of development.

4.4.2. Development follows an orderly sequence

The rate of growth and development is different in different individuals depending upon a number of factors but it does follow an orderly sequence in all the individuals. The psychologists have reported three important directional trends in the process of development.

- Cehaulo caudal: Development starts from head and proceed toward heel. We see that development of head of a child is well advanced as compared to other parts of the body.

- Proximodigital: Development starts from the central part of the body. Then it spread to other outer or more distant part of the body. We see that an infant uses his shoulders and elbows first to reach an object and then be using his fingers and wrists.

- Locomotion: Locomotion develops in a sequence in all the individuals belonging to different cultures of the world. The rate of development for different infants may be different but every infant will have to pass through these stages at all cost. For example, an infant first learns to crawl, then to sit, then to stand and finally to walk. No infant can walk directly in the first stage.

4.4.3 Development is a continuous process

Development is a continuous process which begins from the time of conception in the womb of the mother and continues till death. But this process is not always smooth or gradual. Ups and down are most of the times seen in every stage of development. There are spurts in physical

growth and psychological functioning. Sharp growth rate is seen at the time of spurts. For example, a sharp increase in height and weight in the early adolescent period, a fast rise in vocabulary during pre-school period, sudden improvement in problem solving abilities during adolescence and so on.

4.4.4. Development goes from bilateral to unilateral trend

Infants up to the age of 2.5 years are both of their hands with equal ease. Then they learn to use any of their hands preferably. Similarly, in the beginning of cycle learning we use both the hands to control it but when we become fully experts in cycle learning we can control the cycle single handedly. Thus, development is a process of specialization also.

4.4.5. Inter – Relationship of different aspects of development

Different aspects of development are interdependent and interrelated. For example child's social behavior is interrelated with the physical development. If child is physical handicapped, his emotional development may also be slow with aggressive development in some emotions. Similarly, if social development of an individual is poor, his mental or physics development will also be slows.

4.4.6. Development is individualized process

All individuals develop in their own way depending on their genetic characteristics and the training received from the environment. Thus each child has his own rate of physical, social, mental and emotional development. If we observe ten years old children in a society, we find that there are great differences in their height, weight sociability, emotional expressions and learning readiness. Similarly the rate of growth is very

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high during infancy or pre-adolescent period and compared to other periods of life. Thus, rate of growth also changes with the change in stages of life.

4.4.7. Development is positive and negative both

Up to a certain period of human's life all the faculties of the individual develop but after that retardation starts especially after the age of 70. Physical and emotional retardations are seen during this age with zero social development. Mental development still continues but it too ultimately starts diminishing with the increase in age. Death is nothing but the collapse of all these processes of development.

4.4.8. Development is cumulative

Development is a cumulative process. Certain changes impress the observer and it looks as these changes are sudden but actually they are not sudden. They are the cumulative effect of all the changes in the individual. The child climbs the steps of the development one by one and then he reaches the zenith. The child first of all learns the words, then he learns the phrases, then sentences and finally he comes to know how the stories or essays are written. Thus each change in the child is the combination of his prior growth and experiences.

4.4.9. Development proceeded from general to specific

In all types of development we find the principle of mass differentiation and integration. At the time of birth, the world is like big blooming confusion for the child. Then by and by his behaviors are refined and become goal directed responses.

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4.4.10 Rate of development differs with sex

There is slight difference in the process of development between boys and girls. Girls mature earlier those boys at least emotionally. Girls mature earlier than boys at least emotionally. Girls are taller and behavior than boys in pre adolescence period but by the end of this period boys surpass them.

Check your Progress

Notes: a) Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

2. List out the General Principles of Development.

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4.5 THEORIES OF GROWTH AND DEVELOPMENT- PSYCHO- ANALYTIC THEORY

4.5.1 Freud's Psycho-Analytical Theory

This theory has three major parts. They are:

- Theory of personality dynamics
- Theory of personality structure
- Theory of Psychosexual development

These theories are explained as follows:

Theory of Personality Dynamics: According to Freud, the human mind has three divisions, namely, conscious mind, semiconscious mind and unconscious mind.

- **Conscious mind:** This layer of mind contains thoughts and perceptions of which we are aware at a given moment.
- **Semiconscious mind:** This layer of mind stands between conscious and unconscious part of the mind and refers to those experiences of which the individual is not fully aware but can be recalled easily. It contains memories and stored knowledge.
- **Unconscious mind:** This is the deeper layer of mind. It contains repressed wishes, fears, selfish needs, unacceptable sexual desires, immortal urges and shameful experiences. These cannot be recalled by an individual. All these three divisions of mind decide the personality development of an individual.

Theory of Personality Structure : Freud states that, the personality is built around the three interrelating system namely id, ego and superego.

- **Id:** The id consists of all primitive, innate urges like bodily needs, sexual desires and aggressive impulses. It is hidden in the deep layer of his unconscious mind. It is guided by the pleasure seeking principle. It has no values, knows no laws, follows no rules, does not recognize right or wrong and considers only the satisfaction of its needs.
- **Ego:** Ego is a second system functions to check the unlawful activities of Id. It follows the principle of reality. The ego is partly conscious but not entirely so. It mediates between Id and Superego.

- **Superego:** Superego is the third system of personality. It is the ethical or moral aim of the personality. It develops out of ego's experiences with social reality. It is idealistic and does not care for realities. Perfection rather than pleasure is its goal. It judges what is good or bad to the social norms.

Theory of Psycho Sexual Development : Freud identified five stages of personality which depend on fixation of sexual energy at a particular stage development. They are:

- **Oral stage (birth to 2 years):** At this stage, the infant gets pleasure from sucking the lips
- **Anal stage (2 to 3 years):** At this stage, the child derives much pleasure through anal expulsion or anal manipulation
- **Phallic stage (3 to 5 years):** At this stage, child derives gratification by touching the genital region
- **Latency stage (6 to 13 years):** At this stage, avoidance of sexuality on account of the pressure of society and
- **Genital stage (during adolescence):** At this stage, homosexual and heterosexual interest develops.

4.6. ANSWERS TO CHECK YOUR PROGRESS

1. 'Development' implies overall changes in shape, form or structure resulting in improved working or functioning. It indicates the changes in the quality or character rather than in quantitative aspects. Development is the result of growth, maturation and learning .

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2. Development is a product of interaction, Development follows an orderly sequence, Development is a continuous process, Development goes from bilateral to unilateral trend, Inter – Relationship of different aspects of development, Development is individualized process, Development is positive and negative both, Development is cumulative, Development proceeded from general to specific, Rate of development differs with sex.

4.7. LET US SUM UP

Development is a product of interaction, Development follows an orderly sequence, Development is a continuous process, Development goes from bilateral to unilateral trend, Inter – Relationship of different aspects of development, Development is individualized process, Development is positive and negative both, Development is cumulative, Development proceeded from general to specific, Rate of development differs with sex. 'Development' implies overall changes in shape, form or structure resulting in improved working or functioning. It indicates the changes in the quality or character rather than in quantitative aspects. Development is the result of growth, maturation and learning.

4.8 KEY WORDS

GROWTH, DEVELOPMENT, PSYCO-ANALYTIC

4.9 SELF ASSESSMENT QUESTION AND EXERCISE

1. What is the meaning of growth?
2. What is the meaning of development?
3. Explain the Principles of Development
4. Elucidate the Psycho – analytic theory.

4.10 SUGGESTED READINGS

NOTES

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UNIT-V

ERICKSON'S THEORY OF PSYCHOSOCIAL DEVELOPMENT

5.1 INTRODUCTION

In this unit, we shall discuss about various theories of psychosocial development.

5.2 OBJECTIVES

This unit is meant to help you learn the concept, the dimensions and the stages of development.

After going through this unit, you should be able to:

- explain the Kohlberg's theory of development.
- describe the Erickson's theory of Psychosocial development

ERICKSON'S THEORY OF PSYCHOSOCIAL DEVELOPMENT

5.3 PSYCHOSOCIAL DEVELOPMENT

Erick Erickson's theory of psychosocial development is one of the best-known theories of personality in psychology. Much like Sigmund Freud, Erickson believed that personality develops in a series of stages. Unlike Freud's theory of psychosexual stages, Erickson's theory describes the impact of social experience across the whole lifespan.

Psychosocial Stage 1 - Trust Vs. Mistrust

- The first stage of Erickson's theory of psychosocial development occurs between birth and one year of age and is the most fundamental stage in life.
- Because an infant is utterly dependent, the development of trust is based on the dependability and quality of the child's caregivers.
- If a child successfully develops trust, he or she will feel safe and secure in the world. Caregivers who are inconsistent, emotionally unavailable, or rejecting contribute to feelings of mistrust in the children they care for. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable.

Psychosocial Stage 2 - Autonomy Vs. Shame and Doubt

- The second stage of Erickson's theory of psychosocial development takes place during early childhood and is focused on children developing a greater sense of personal control.
- Like Freud, Erickson believed that toilet training was a vital part of this process. However, Erickson's reasoning was quite different then that of Freud's. Erickson believe that learning to control one's body functions leads to a feeling of control and a sense of independence.
- Other important events include gaining more control over food choices, toy preferences, and clothing selection
- Children who successfully complete this stage feel secure and confident, while those who do not are left with a sense of inadequacy and self-doubt.

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Psychosocial Stage 3 - Initiative Vs. Guilt

- During the preschool years, children begin to assert their power and control over the world through directing play and other social interaction.
- Children who are successful at this stage feel capable and able to lead others. Those who fail to acquire these skills are left with a sense of guilt, self-doubt and lack of initiative.

Psychosocial Stage 4 - Industry Vs. Inferiority

- During adolescence, children are exploring their independence and developing a sense of self.
- Those who receive proper encouragement and reinforcement through personal exploration will emerge from this stage with a strong sense of self and a feeling of independence and control. Those who remain unsure of their beliefs and desires will insecure and confused about themselves and the future.

Psychosocial Stage 6 - Intimacy Vs. Isolation

- This stage covers the period of early adulthood when people are exploring personal relationships.
- Erickson believed it was vital that people develop close, committed relationships with other people. Those who are successful at this step will develop relationships that are committed and secure.
- Remember that each step builds on skills learned in previous steps. Erickson believed that a strong sense of personal identity was important to developing intimate relationships. Studies have demonstrated that those with a poor sense of self tend to have less

committed relationships and are more likely to suffer emotional isolation, loneliness, and depression.

Psychosocial Stage 7 - Generativity Vs. Stagnation

- During adulthood, we continue to build our lives, focusing on our career and family
- Those who are successful during this phase will feel that they are contributing to the world by being active in their home and community. Those who fail to attain this skill will feel unproductive and uninvolved in the world.

Approximate Age	Psychosocial Crisis/Task	Virtue Developed
Infant - 18 months	Trust vs Mistrust	Hope
18 months - 3 years	Autonomy vs Shame/Doubt	Will
3 - 5 years	Initiative vs Guilt	Purpose
5 -13 years	Industry vs Inferiority	Competency
13 -21 years	Identity vs Confusion	Fidelity
21- 39 years	Intimacy vs Isolation	Love
40 - 65 years	Generativity vs Stagnation	Care
65 and older	Integrity vs Despair	Wisdom

5.4 KOHLBERG'S VIEWS ON MORAL DEVELOPMENT

Kohlberg distinguished three levels of moral development as pre conventional, conventional and post conventional, each divided into two stages.

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- Preconventional Level

Stage 1: Punishment and Obedience Orientation: The moral development determined by the physical consequences of an action whether it is good or bad, avoiding punishment and bowing to superior authority are valued positively.

Stage 2: Instrumental Relativist Orientation: Right action consists of behaviour that satisfied child's own needs. Human relations are considered in reciprocity. It may be seen in a pragmatic way.

- Conventional level

Stage 3: Interpersonal Concordance: At this stage, the child begins to like the good will of others and tries to please others to obtain their approval-good boy-nice girl. Good moral behaviours are those please others.

Stage 4: Orientation towards Authority: Focus is on authority or rules and one shows respect for authority.

- Post Conventional Level

Stage 5: Social Contract Orientation: Right behaviours are defined according to standards agreed upon by the group or society. Through a proper procedure, these standards can be changed.

Stage 6: Universal Ethical Principle Orientation: At this stage, the individual keeps not only the norms of society in mind but also the universal moral principles. An individual may be prepared to sacrifice his all, including life for the upholding of these principles.

Check your Progress

Notes: a) Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Write a Short note on Kohlberg's Moral Development

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5.5 JEAN PIAGET'S THEORY OF DEVELOPMENT

5.5.1 Moral Development

The term moral is derived from the Latin word 'mores' meaning manners, customs and folk ways. Morality is indissolubly linked with the social system. The children have to learn what is good and what is bad, what is right and what is wrong. He has also to learn his duty. All these terms imply clearly that morality has reference to social relationship and social process.

5.5.2 Piaget's views on Moral Development

According to Piaget, there are four stages:

- **Anomy (the first five years)**
- **Heteronomy-Authority (5-8 years)**
- **Heteronomy-Reciprocity (9-13 years)**
- **Autonomy-Adolescence (13-18 years)**
- **Anomy:** Piaget called the first stage 'Anomy', the stage without the law. At this stage, the behaviour of the child is neither moral

nor immoral but non moral or a moral. His behaviour is not guided by moral standards. The regulators of behaviour are pain and pleasure. This is the "discipline of natural consequences" as advocated by Rousseau.

- **Heteronomy: Discipline of Authority-** The second stage of moral development may be called as the discipline of artificial consequences imposed by adults. Moral development at this stage is controlled by external authority. Rewards and punishment regulate moral development.
- **Heteronomy: Discipline of Reciprocity**-At the third stage, there is the morality of cooperation with peers of equals. This stage is regulated by reciprocity which implies, "we should not do to others what will be offensive to us". Conformity with the group becomes imperative.
- **Autonomy:** Adolescence-Piaget calls this stage as equity stage. The individual at this stage is fully responsible for his behaviour. The rules governing moral behaviour come from within the individual. Such autonomy is the ideal of moral development.

5.5.3. Stages of Development

Based on certain developmental characteristics psychologists have classified human life span into the following developmental stages:

Parental stage: Germinal period (first 2 weeks) Embryonic period (2 to 8 weeks)

(from conception to birth)

Fetal period (9 week to birth)

II postal stages

- Infancy from birth to 2 years
- Childhood
  - (i) Early childhood from 3 to 6 years
  - (ii) Later childhood from 7 to 11 years
- Adolescence
- Adulthood
  - (i) Early adulthood from 20 to 29 years
  - (ii) Later childhood from 30to 50 years
- Senescence from 50 to 60 years
- Old age from 60 years onwards

Educational Measures for Adolescence

Educational programmes are to be planned in such a way to accommodate the adolescents in property way. The following are some of the strategies for providing appropriate education to adolescents.

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- Sex education should be imparted to the individuals for understanding of their own physique and development sex related queries etc.
- Adolescent's needs and interests are different. The school should have proper library, playground, art and craft rooms etc. to cater their needs.
- Adolescence is a period demand respect and recognition. They should get involved in setting garden creating department library, social activities, recreational activities etc. through which they develop a sense of recognition and responsibility.
- Adolescents want independence in every action. Hence, the school curriculum must provide ample opportunities of self-study and freedom to select learning subjects and materials
- Guidance and counseling should be set at school to provide service to the needs and aspirations of individuals
- Schools have to differentiate between discipline and freedom. They should not bring discipline in terms of all restrictions in their freedom
- Creative abilities are to be strengthened by rewards and awards
- Adolescents imitate their role models. The great personalities of the world are focused to them for selecting as role models, through which they develop the qualities to bring out productivity to the society

- A regular parent teacher meet brings down majority of problems of an individual. They discuss the personal, educational, health and emotional adjustments of the individual.

Check your Progress

Notes: a) Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

2. Write notes on characteristics of adolescence

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5.6. ANSWERS TO CHECK YOUR PROGRESS

1. Kohlberg distinguished three levels of moral development such as pre conventional, conventional and post conventional, each divided into two stages.

2. The characteristics of an adolescent are as follows: i) Growth spurt: A rapid increase in height and weight ii) Puberty: Rapid development of the reproductive organs that signals sexual maturity iii) Body images and adjustment critically apprising their body and self-image iv) Extremely sensitive and perceptive about their own physical appearance

5.7. LET US SUM UP

In this unit, we have studied the different developmental theories. As you have seen, adolescence is a period of transition between childhood and adulthood. Accompanying it, they face a number of problems. During this

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period, adolescents are considered neither as children nor as adults. Their status remains ambiguous. They are prone to rebel against authority. What baring these characteristics adolescents have upon the instructional; process and for dealing with their particular problems have also been discussed. What you as a teacher can do to attend to these problems and how you help the development of a balanced personality of your students have also been dealt with in order to create a better understanding of students needs and problems.

5.8 KEY WORDS

GROWTH, PSYCHOSOCIAL, MORAL DEVELOPMENT, PSYCO-ANALYTIC

5.9 SELF ASSESSMENT QUESTION AND EXERCISE

5. Elucidate the theory of Erickson's?
6. Explain jean Piaget's theory of development?
7. Trace those events from your own childhood and adolescence stages that reflect the characteristics of these periods.
8. "Adolescence is a period of storm and stress". Discuss with convincing arguments
9. Teachers can do a lot to help adolescents develops a balanced personality. How? Discuss your experiences in this regard.

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UNIT- VI - NATURE OFLEARNING

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6.1 INTRODUCTION

In this unit, we shall discuss how learning takes place in an individual and what the different types of learning are. You will learn about the conditions of learning, maturation and the process of learning. You will also learn factors relating to memory and forgetting. You will learn the fundamentals of motivation.

6.2 OBJECTIVES

This unit is meant to help you learn the concept, learning and maturation, factors affecting learning, plateau of learning, Individual differences, Memory and forgetting, Motivation.

After going through this unit, you will be able to:

- explain the theories of learning plateau of learning.
- describe the nature and importance of learning.
- discuss the educational implications of Learning and Maturation.

6.3 NATURE AND IMPORTANCE OF LEARNING

The knowledge we acquire, the language we speak, the habits, attitudes and skills developed in us are all due to learning. Psychologists defined learning as a relatively permanent change in behavior, which occurs as a result of activity, training, practice or experience. This definition of learning has three important elements:

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1) Learning results in change in behavior.
2) It is a change that takes place through practice or experience (Changes due to growth and maturation are relatively independent of activity, practice or experience and hence they are not learning).
3) Before it can be called learning, the change must be relatively permanent. It must last a fairly long time. But, behavioural changes brought about by fatigue, drugs, illness, warm up etc. are transitory in nature and hence they are not included under learning.

Thus, learning could be defined more simply as "profiting from experience".

6.4 LEARNING AND MATURATION

In the case of human activities, development occurs as a result of maturation and learning. No amount of teaching or exercise will enable a six month old baby to talk or walk. It is also equally true that the child does not learn the language just because he attains that stage or age, unless the language is taught to him. The language which he learns is that which he hears.

A number of studies have been conducted to show the importance of maturation for learning and development, of which two have been described below: i) **W.N. Kellogg and L.A. Kellogg** reared an infant boy and an infant chimpanzee in the same human environment, treating them with the same affection and tenderness. The aim of the experiment was to see to what extent, the chimpanzee could be humanized by the human environment. The boy was two months older than the chimpanzee; still the chimpanzee was able to learn to skip, to open the door, to eat with a spoon, to drink from a glass, earlier than the boy. This was because the

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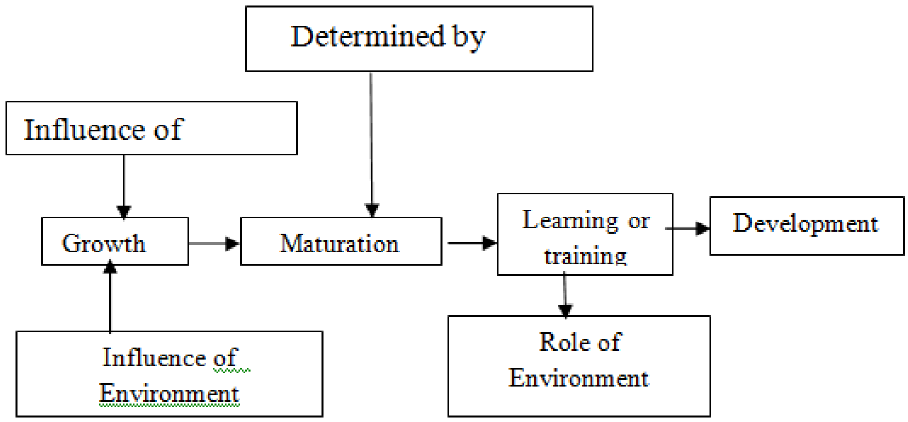
chimpanzee though two months younger was physically more mature. However, by 15 months of age the boy surpassed the chimpanzee in almost everything in physical strength. This experiment has led to the following inferences:

The chimpanzee, though of an inferior species, was superior to the human child in certain respects. This superiority was due to the earlier maturity (because of its heredity) of the chimpanzee. On the other hand, the boy even with his relative immaturity, was able to speak, to imitate and to solve a number of problems which the chimpanzee could not do, even though it was more mature as a chimpanzee could not do, even though the it was more the training given to the two was the same.

G**esell and Thompson's co-twin study:** In this experiment it was tried to find out whether the training of one twin in stair climbing could give an advantage over the other untrained twin. At 46 Weeks of age, neither of the twins could climb stairs. It was found that after 4 weeks of training she was able to climb without assistance and by 52 weeks she claimed 5 steps in 6 seconds. During all this period, twin C, the control twin, and no chance of climbing a stair. When she was 53 weeks old, she was placed on the staircase. She climbed the stairs unaided and took 45 seconds to climb five steps: but with a week of practice, she was able to climb five steps in 10 seconds. This experiment shows the strong influence of maturation. The two processes-maturation and learning-are closely related to each other.

Training given before 52 weeks, the period required for maturity proved to be ineffective in staircase climbing. But training given to the child when it attains the requisite physical maturation for climbing stairs, brings forth quick learning and faster development. Thus maturation could be considered as Physical readiness for learning.

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Maturation helps in the process of learning. Learning can take place in the stage for the type of learning has been achieved through the process of maturation. If the teacher understands the complexity of the changes that are going on, as a result of both process and the interaction between the two, he will not go straying his teaching. Forcing the child to attempt to learn some speech patterns, before certain maturation has occurred, can disrupt the normal development of speech in the child. On the other hand, failure at an appropriate time to provide specific training (deliberately planned and sequentially organized environmental influences) in speech may be cardinal educational error hampering the language development of the child. Similarly an infant attains the requisite physical maturation to old a pencil and manipulate that the age of 5. But giving training to children at the age of 3, in the L.K.G. class is highly ineffective as could be seen in the slow progress and there is always a danger of the hand written of such children becoming illegible and bad.

6.5 FACTORS AFFECTING LEARNING

'Learning' is one of the most important functions of our cognitive system which brings about relatively permanent changes in the

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behaviour of the learner. There are some factors which influences the acquisition of knowledge by perceived information through learning. These factors determine the achievement of desired goals aimed in the learning process. The factors are:

a) Psychological individual differences of learners

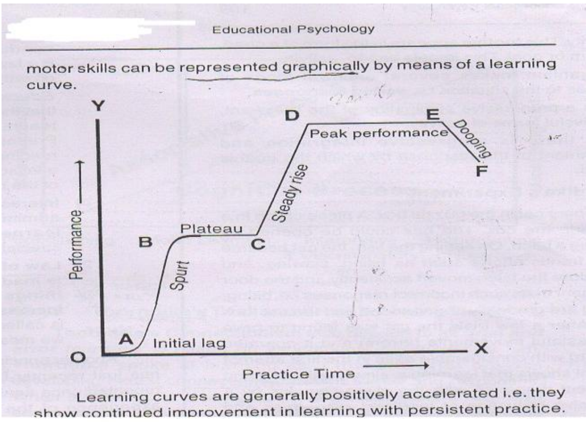
b) Teachers' enthusiasm in classroom learning

c) Environment and other factors

6.6 THEORIES OR LEARNING- PLATEAU OF LEARNING

The Measured results of growth in learning especially of motor skills can be represented by means of a learning curve.

Learning curves are generally positively accelerated i.e. they show continued improvement in learning with persistent practice. Positively accelerated learning curves exhibit certain general characteristics.



In the initial stage (OA), the gain is slow and gradual. This may be due to the fact that the individual often does not possess sufficient practice in all the basic skills for the learning activity undertaken.

After the initial slow rate, there will be spurt (AB) in learning due to familiarity with the task. It is followed by Plateau (BC) which is a period of apparently no progress in learning in spite of continued practice. If the learner persists in his learning activity, he makes steady progress further (CD) and reaches the maximum limit or zenith (DE) which is different for different individuals always determined by the physiological limits of the individual. The portion EF of the curve represents the decline in the performing due to 'aging'.

6.6.1 Plateau in the learning curve and the reasons for it

In any task of learning, the rate of learning will be slow at the start due to newness of the task. After gaining certain degree of familiarity with the task, there occurs a spurt in the rate of learning, and is followed by a 'period of no progress' (called plateau). 'Plateau' may arise due a number of factors like

i. Decline in interest and motivation, after initial phase of learning
ii. Boredom and fatigue due to continued practice
iii. Absence of feedback resulting in loss of involvement in learning
iv. Low level of aspiration which makes the learner satisfied with the progress already achieved
v. Choice of inappropriate method of learning does not allow progress beyond a particular level (e.g. primary school children who learn by role memorization, become slow learners after 8th standard)
vi. Modern psychologist believes that plateaus are 'periods of consolidation' during which earlier learners are organdies and established, before launching new strategies to acquire further learning. It is just like a 'base camp' in mountaineering where in

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stock taking is done and new strategies are planned for further assault.

Changing methods of learning, using reinforces, prescribing realistic levels of achievement, fostering self-confidence etc. are some of the means which teachers can adopt to help pupils cross plateaus while learning.

6.7 INDIVIDUAL DIFFERENCES

No two learners are alike. Individual differ in their physical characteristics, emotional characteristics, personality traits, interests, achievement etc. Mass procedures fail to accomplish the objectives of education unless they are supplemented by adequate attention to the individual. This makes increasingly necessary to have a definite provision of certain form of guidance which must treat the individuals as an individual

Every individual is a typical human being in himself. Being alike in some aspects we are definitely different in so many other aspects. These differences that distinguish one from another and also make one as a unique individual are named as 'individual differences' in the terminology of psychology. Two different explanations given for the term individual differences in the "Dictionary of Education" by Carter B Good are:

- Individual differences stand for variations or deviations among individuals with regard to single characteristics or a number of characteristics
- Individual difference stands for those differences which in their totality distinguish one individual from another

The above two dictionary meanings of the term individual differences now can help us in building a workable definition the following words.

6.8 REMEMBERING (MEMORY)

Memory denotes the ability or power of mind to retain and reproduce learning. This power of ability helps in the process of memorization. Both the terms ‘memorization’ and ‘remembering’ carry the same meaning. While differentiating memory and remembering, Levin (1978) says “Memory can be linked to a giant filling cabinet in the brain, with data sorted, classified and cross-filed for future reference. Remembering depends on how the brain goes about coding it input”. It is this sense that the terms memory and remembering, in spite of their being noun and verb respectively are used synonymously.

What we learned are stored in our brain. This process is technically called as memory. We learn a lot of things in our life. But, we remember very selective things, remaining are faded. This fading of information from our memory is technically called as forgetting. So, forgetting is the failure to recall the information stored in our mind. Memory is a store house. It stores information. This information is recollected. Memory in general is an ability to remember things that happened a short or long time ago. So, our mind has the power of retaining and reproducing the information. According to Woodworth, four main elements involved in memory are learning, retention, recall and recognition.

Psychologists put forth various definitions for memory. Some of the important definitions of the eminent psychologists are presented as below.

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- Guilford (1968): "Memory is retention or storage of information in any form".
- Eysenck (1970): "Memory is the ability of an organism to store information from earlier learning process, experience, retention and reproduce that information in answer to specific stimuli".

Memory has three stages: encoding, storage and retrieval.

ENCODING ⟶ STORAGE ⟶ ETRIEVAL

Put into Memory | Maintain in memory | Recover from memory

The first stage, encoding consists of the placing information in memory. This occurs when we study. The second stage is storage, when the information is retained in memory. The third stage, retrieval, occurs when the information is recovered from storage-for example, when we take an examination.

Check your Progress

Notes: a) Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Write notes on Individual Difference.

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2. Define Memory

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6.9 FORGETTING

The inability to retrieve the previously stored information is called forgetting. Anything stored in the memory is subject to forgetting. Forgetting may be slow or fast depending upon the individual, the situation and the nature of the information.

Psychologists define forgetting scientifically. Some of the definitions are focused as follows.

- Drever (1952): Forgetting means failure at any time to recall an experience when attempting to do so or to perform an action previously learnt.
- Munn (1967): Forgetting is the loss, permanent or temporary, of the ability to recall or recognize something learned earlier.

6.10 MOTIVATION

Motives generally refer to biological, social and learned factors that initiate, sustain and stop goal directed behavior of organisms. Motives be physiological or psychological and act from within the organism. The term **'**Motive**'** in its root Latin means 'to move' or 'to impel'. Thus, organism acting with a motive exhibits a specific behaviour and strives to reach the goal, appropriate to the motive.

Tolman speaks of motives as tendencies to strive for goals. Herb defined motives as events which arouse an organism to action. A motive creates a state of disequilibrium or tension within the organism and thus initiates and sustains a particular type of activity which would lead to restoration of

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equilibrium by the attainment of the goal central to the motive. So, 'disequilibrium' and 'tension' appear to be basic to motivation.

6.11 ANSWERS TO CHECK YOUR PROGRESS

1. Every individual is a typical human being in himself. Being alike in some aspects we are definitely different in so many other aspects. These differences that distinguish one from another and also make one as a unique individual are named as 'individual differences' in the terminology of psychology. Two different explanations given for the term individual differences in the "Dictionary of Education" by Carter B Good are:Individual differences stand for variations or deviations among individuals with regard to single characteristics or a number of characteristicsIndividual difference stands for those differences which in their totality distinguish one individual from another

2. Memory is the ability of an organism to store information from earlier learning process, experience, retention and reproduce that information in answer to specific stimuli.

6.12 LET US SUM UP

Understanding the nature of the learning process help us in solving the problems related to the educational processes. To understand as to how human beings learnt is, therefore, important for attaining competence in teaching. Psychologists differ in opinion regarding the nature of the leaning process. However, they point towards the fact that learning is more or less a permanent modification of behaviour. Which results from activity, training or observation? Learning is directed towards some goal and takes place when an individual interacts within learning situation. There are

some behaviours which are the outcome of reflex actions, biological instants and maturation, these are not categorised as learned behaviours.

Memory is a special faculty of the mind to conserve or retain what has been previously experienced or acquired through learning and then, at some later stage, to retrieve or reproduce it in the form of recall or recognition to enable us to utilize such learning in different situations of daily life.

6.13 KEY WORDS

MATURATION, PLATEAU OF LEARNING, INDIVIDUAL DIFFERENCES, MEMORY, FORGETTING

6.14 SELF ASSESSMENT QUESTION AND EXERCISE

1. Elucidate the theories of learning Plateau of learning.
2. Explain the importance of individual differences in learning?
3. Give short note on remembering and forgetting.

6.15 SUGGESTED READINGS

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UNIT-VII - INTELLIGENCE

7.1 INTRODUCTION

In this unit, we are going to define intelligence and discuss different theories of intelligence and assessment of intelligence using intelligence tests. Moreover, we are going to study about the creativity of the individuals. The relationship between creativity and intelligence, the ways to foster creativity among students and the measures of creativity are dealt in this unit.

7.2 OBJECTIVES

This unit is meant to help you learn the concepts of Intelligence, factor theories of intelligence, classification of intelligence tests, creativity, theories of creativity, creativity and education.

After going through this unit, you shall be able to:

- explain the factor theories of intelligence.
- describe the classifications of intelligence tests.
- discuss the theories of creativity and educational implications of creativity.

7.3 INTELLIGENCE

The human individual has several points of uniqueness and superiority over the animals, the most important of which is **"**Intelligence**".** Successes in schools and colleges and in one's own profession, social adjustment, possession of general information etc. are part of the meaning commonly

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associated with the concept **"**Intelligence**".** Though psychologists have been measuring intelligence of a person with appreciable degree of reliability, but, they have not been able to agree to the nature of intelligence as such. This is primarily due to the reason that, intelligence does not yield for precise measurement as we are able to measure many of the human characteristics like height, weight, visual acuity, auditory acuity etc. Nature of intelligence is to be inferred from the way an intelligent person behaves, the way he thinks, reasons and acts. Intelligence is to be assessed by judging one's ability to learn, capacity to adapt to new environments and efficiency to solve problems.

7.4 DEFINITION OF INTELLIGENCE

- Studdard speaks of intelligence as the "ability to start and sustain, in spite of emotional interferences, activities that are difficult, novel and useful in an economical manner".
- A very comprehensive and widely accepted definition of intelligence has been given by Wechsler, which states "Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with environment". This definition encompasses all the three major viewpoints which regard intelligence as:
    - Adjustment or adaption ability
    - Ability to learn
    - Ability to carry on abstract thinking

- Alfred Binet considers intelligence as involving such abilities as "understanding, originality, persistence and self-criticism".

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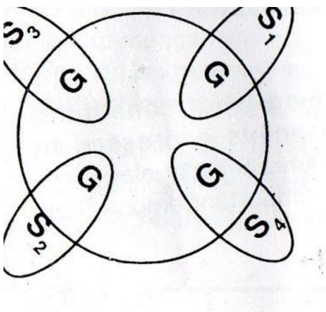
7.5 TYPES OF INTELLIGENCE

Some psychologists, notably Thorndike believed that several kinds of intelligence should be distinguished from each other. According to him, intelligence is of three kinds:

- **Social Intelligence:** It refers to the knack of getting along with people. Socially intelligent person makes friends easily and understands human relations
- **Mechanical Intelligence:** It is the ability to deal effectively with machines or mechanical contrivances
- **Abstract Intelligence:** It is the ability to deal with symbols (both verbal and numerical), diagrams, formulae etc.

7.6 FACTOR THEORIES OF INTELLIGENCE

There are many views regarding what constitutes "intelligence"**.** The different viewpoints expressed by psychologists regarding the structure and functioning of intelligence go by the name theories of intelligence. Important among them are presented below:



7.6.1 Unitary Theory or Monarchic Theory

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This theory holds that, intelligence consists of all pervasive capacity. Binet, Terman and some other classical psychologists supported this view. According to this theory, if one has a fond of intelligence, he can utilize it to any area of his life. The intelligence of a person gets stamped in all what he thinks and acts. But, in our practical life, we see contrary to this. A genial mathematical professor may be absent minded or socially ill-adjusted. Further, analysis of scores in an intelligence test battery shows that different tests in the battery are not highly correlated. Hence, it is suggested that, the unifactor approach is too simple and a complex model is needed to explain intelligence satisfactorily.

7.6.2 Spearman’s Two-Factor Theory

Spearman proposed his two-factor theory of intelligence in 1904. The first factor was a general capacity which was basically a reasoning factor. According to this theory, every different mental abilities involves a general factor (G), which it shares with all other mental activities and a specific factor (S), which it shares with none. ‘G’ factor is largely innate and accounts for success in all activities. It is constant in the sense that for any success in all activities. It is constant in the sense that for any individual it remains the same for all the correlated activities. It differs from individual to individual. But, success in any specialized field very much depends on the concerned specific factor which is essentially learnt. Thus, no person is absolutely uniform in his mental performance. So, persons who are good in nature sciences are poor in social sciences. Some who excel in mathematics are poor in language. Thus, performance in any situation is

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predicted by the amount of share of 'G' and 'S' in different intellect activities. This can be represented as follows:

G: General Factor (approximates to 'common sense')

S: Specific Factor

7.6.3 Thorndike's Multi-factor Theory

Thorndike was an associationist and he opposed the theory of general intelligence (Unifactor theory). He proposed that there is specific stimuli and specific response. Intelligence to him is nothing more than a convenient name for almost infinite number of actual or potential specific connections between these stimuli and responses. Differences in intelligence among people are due to the number of connections in the neurological system. According to the theory, intelligence is said to be constituted of a multitude of separate factors or elements, each being a minute element or ability (and hence this theory is known as atomistic theory of intelligence). A mental act according to this theory involves a number of these minute elements operating together. If any two tasks are correlated, the degree of correlation is due to the common elements involved in the two tasks.

Thorndike distinguished four attributes of intelligence. They are:

- **Level:** This refers to the difficulty of a task that can be solved. If we think of all test items arranged in a sequential order of increasing difficulty, then the height that we can ascend on this ladder of difficulty determine our level or attitude of intelligence

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- **Range:** This refers to the number of tasks at any given degree of difficulty that we can solve. Theoretically, an individual possessing a given level of intelligence should be able to solve the whole range of tasks at the level. 'Range' is determined not only by 'level' but also by the breadth of experience and by opportunity to learn. In intelligence tests, range is represented by items of equal difficulty.
- **Area:** It refers to the total number of situations at each level to which the individual is able to respond. Area is the summation of all the range at each level of intelligence processed by an individual
- **Speed:** This is the rapidity with which an individual can respond to items. Speed and altitude are positively related. Speed is much closely bound up with altitude than are the other attributes. We should not, therefore emphasize speed too much in our intelligence tests.

7.6.4 Thurstone Group-factor Theory

Group factor theory has been advocated by Thurstone and his associates. According to the group factor theory, intelligent activity is not expression of innumerable highly specific factors as Thorndike claimed. Nor is it the expression primarily of a general factor as spearman held. Instead, the analysis and interpretations of Thurstone and others, led them to the conclusion that certain mental operations have in common a 'primary' factor, which gives them psychological and functional unity and which differentiates them from other mental operations. These mental operations, then, constitute a group. A second group of mental operations, then, constitute a group. A second group of mental operations has its own unifying 'primary factor'; a third group has a third, and so on. Each of these primary factors is said to be relatively independent of others. From

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further analysis, Thurstone and his colleagues concluded that seven **Primary Mental Abilities (PMA)** emerged clearly enough for identification and used in test design. They are:

- **Space Visualisation:** The ability to visualise geometric pattern in space
- **Perceptual speed:** Quick and accurate nothing of details
- **Numerical ability:** Quickness and accuracy in simple arithmetic operations
- **Verbal comprehension:** Knowledge of meaning and relationship of words
- **Word fluency:** Ability to think and use many isolated words at a rapid rate
- **Rote memory:** Immediate recall of materials learned
- **Reasoning:** Ability to see relationship in situations described in symbols.

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Define Intelligence.

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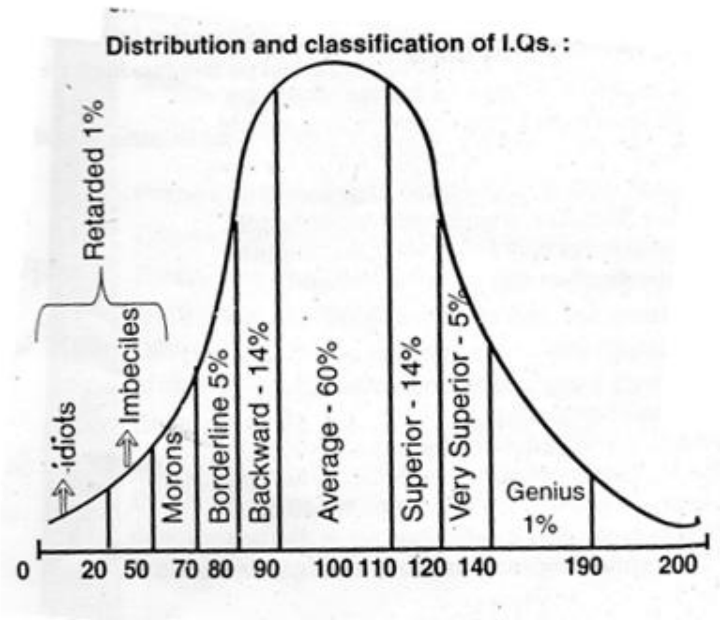
7.7 MEASURING INTELLIGENCE

7.7.1 Distribution of I.Q's

Psychologists says that intelligence (measured I.Q.) is distributed normally in a large random selection of human population. That is, the distribution of intelligence, in the population is observed to be in the following proportions.

The distribution of intelligence, if diagrammatically represented, will be a typical 'bell-shaped' curve, with majority having average I.Q. (between 90 and 110) and a fewer percentage of individuals on either side of the average.

Distribution Classification of IQ's



(According to Stanford-Binet tests, very superior is 1%, superior-11%, high average- 18%, average-46%, low average-15%, borderline-6%,and

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retarded-3%). Mental retardation is mostly hereditary. Idiots and imbeciles may not reach the stage of entering formal schools. Morons, given special education can learn basic life adjustment skills and can to some extent avoid being social parasites by learning certain tasks of self and community value).

7.7.2 Intelligence and Scholastic Achievement

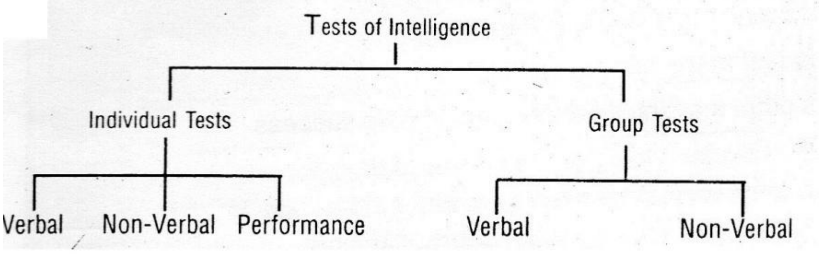
$$\text{Achievement Quotient} = \frac{\text{Achievement Age}}{\text{Chronological Age}} \times 100$$

It is a matter of common knowledge that a child with above average I.Q. does very well in class studies and it will be equally high. But, it is also possible that some pupils with high I.Q.s are even below average in academic achievement. This is because, academic achievement implies knowledge of school subjects which is different from intelligence. Further, for success in academic studies, along with intelligence, interest in studies, a high level of aspiration, continuous efforts as well as conducive home and school environment are needed. Bright children who lack these may be academic failures. At the same time, it is clear that one's intelligence sets the upper limit of one's school achievement and a pupil with average or below average I.Q. can go only up to certain level of achievement, even if he puts forth maximum effort. So, along with intelligence tests, academic aptitude tests are necessary to predict a pupil's success in later school career.

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7.8 CLASSIFICATION OF INTELLIGENCE TESTS

Intelligence tests could be classified as under :



7.8.1 Individual and Group Tests

The first group test developed were Army Alpha Test (for those who knew the English language) and Army Beta Test (for those who are not versed in English and consisting of digits and diagrams). These group tests are paper and pencil tests and there is a time limit for completing the test. It was believed that one who could comprehend correctly and complete quickly the tasks set by the test items had great intelligence than one who could not so well. Army beta group test does not involve language. Subjects are required to respond to each item just by putting a mark next to the appropriate picture or diagram. Following the army group tests of intelligence, many standardized group tests of intelligence like Stanford - Binet tests of Terman, Otis group tests of intelligence, Kuhlman-Anderson group tests etc. have been developed. Group tests of intelligence contains a variety of items of which the following are sample types- vocabulary items, word analogies items, sentence completion items, tests of mathematical reasoning, number series, classification, following directions, picture arrangement tests, memory for designs, absurdities test, common

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sense tests, digit-symbol substitution tests, paper and pencil mazes etc. Some of these are symbolic and pictorial items and others are verbal and abstract items. For the younger age groups test items and as age increases words and abstractions become more stressed.

7.8.2 Verbal and Performance Tests

The early tests of intelligence were verbal or linguistic in nature. So, to take such tests, knowledge of language of the test is necessary. The verbal tests of intelligence have certain disadvantages. Some may give wrong responses not because they lack sufficient intelligence but, because of misunderstanding of the language items in such tests. Similarly those whose mental abilities are not higher, but, who have language proficiency may score high in verbal tests. Also linguistic tests of intelligence cannot be applied to test the abilities of those who do not know the language, very young children, tribal or aboriginals' and those with sensory handicaps. To get over these limitations performance tests are non-verbal; but all non-verbal tests need not be performance tests. Non-verbal tests such as matrices, mazes etc. do not use words, but, use symbols and diagrams and other perceptual designs; whereas performance tests of intelligence make use of concern objects with which the subject has to do something. Performance tests of intelligence assess the behavior a raising out of intelligence and involve doing certain standardised tasks using ordinary materials like cubes, beads etc. with which one is familiar. Tests devised by Pinter and Patterson, Collins and Draver and Bhatia (for Indian children) are some popular performance tests of intelligence. Bhatia's tests of intelligence includes: (i) Koh's Block Design test (ii) Alexander's pass along test (iii) Pattern-Drawing test (iv) Immediate Memory test for digits and (v) Picture construction test. In estimating the mental level of

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performance, the time taken to complete the assigned task as well as the errors committed in the course of performance is taken into account and the M.A. arrived at from the table of norms provided with the test battery.

7.8.3 CULTURE-FAIR TESTS

It should be remembered that most of the intelligence tests are culture specific and items often favour socio-economic groups which the test conductor is linked. This bias may not be conscious but is there. Matters taken for granted in one culture cannot be taken for granted in another culture; this applies equally to deprived sub-cultures within more advanced cultures in the same society. Further, mental tests emphasize speed and in non-competitive cultures, speed is not valued as much as slowness. It is for this reason that what are known as “culture free” or “culture fair” tests of intelligence are attempted to be constructed now. Certain tests devised by Cattell which consists of items of classification, completion of series, matrices and spatial perception and the progressive matrices of Ravan (it consists of figures and designs; the subject apprehends relationship between figures and selects appropriate part for completion of each pattern of system of relations) appear to be culture-free and applicable to children of different cultures as well as socio-economic levels.

7.9 CREATIVITY

Creativity is the capacity of the individual to discover or produce new ideas. It may also include restructuring or rearranging the old idea. The only precaution for renaming an expression as creative is that it should not be a mere repetition or reproduction of what has already been experienced or learned. Ausubel defines creativity as a rare capacity for developing

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insights, sensitivities and appreciations in a circumscribed content area of intellectual or artistic activities. In the words of C.R. Rogers, "Creative process is the emergence in action of a novel relation or product, growing out of the uniqueness of the individual on the one hand, and the materials, events, people or circumstances of his life on the other".

The term 'creativity' has been defined in many ways. Some of these definitions are as follows:

- **Bartlett:** Creativity is an adventurous thinking or a getting away from the main trace, breaking out of the mould, being open to experience and permitting one thing to lead to another
- **Drevdahl:** Creativity is the capacity of a person to produce or ideas which are essentially new or novel and previously unknown to the producer
- **David Ausubel**: Creativity is a generalized constellation of intellectual abilities, personality variables and problem- solving traits
- **Guilford:** Creativity is the capacity to produce ideas that are both new and useful through divergent thinking
- **Spearman:** Creativity is the power of the human mind to create new; contents by transforming relations and thereby generating new correlates

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Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

2. Define Creativity.

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7.10 THEORIES OF CREATIVITY

7.10.1 Guilford's Structure of Intellect Model and Model of Creativity



One of the earliest models of creativity was created by a man named J. P. Guilford. Originally, Guilford was trying to create a model for intellect as a whole, but in doing so also created a model for creativity. Guilford hypothesized that every mental task was made up of three separate parts: an operation, a content, and a product. He stated that there were five types of operations, four types of content, and six types of products adding to a total of one hundred and twenty different types of possible metal tasks. Of these one hundred and twenty different mental tasks Guilford identified one specific operation as "divergent production" and marked it as being a vital component of creativity. This divergent production coupled with a content and a product created twenty four possibilities that Guilford labeled collectively as "divergent thinking". By labeling this group of mental tasks as divergent thinking Guilford made an

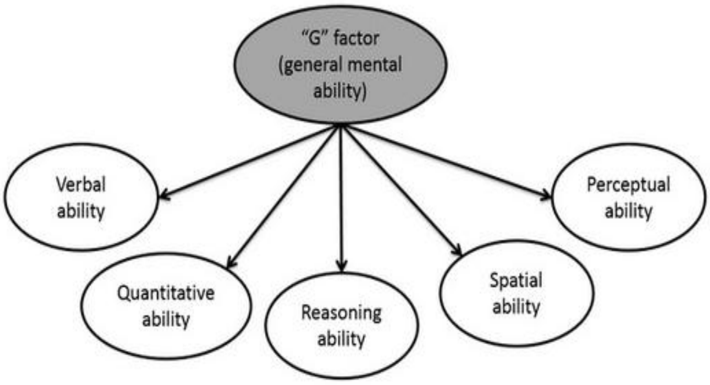
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important assumption for creative research: creativity isn't one abstract concept. He explained that creativity was a result of having

1. Sensitivity to problems, or the ability to recognize problems.
2. Fluency, which encompasses
    - Ideational fluency, or the ability rapidly to produce a variety of ideas that fulfill stated requirements.
    - Associational fluency, or the ability to generate a list of words, each of which is associated with a given word.
    - Expressional fluency, or the ability to organize words into larger units, such as phrases, sentences, and paragraphs.

3.Flexibility, which encompasses

- Spontaneous flexibility, or the ability to demonstrate flexibility.
- Adaptive flexibility, or the ability to produce responses that are novel and high in quality.



7.11. CREATIVITY AND EDUCATION

7.11.1 Fostering creativity among children

Creativity is an attribute that leads to solving problem in new ways: therefore, the educational objectives, the methodology of learning and stimulating environment and the evaluative techniques, all have to be reconstructed so that the creative abilities of students may be developed. The following are the blocks to creative thinking, which have to be removed:

a. High standards of achievement for low levels of work such as routine skills of unimportant material
b. Inflexibility of assignments and methods of work
c. Over-emphasis on school marks and
d. The authoritarian teacher.

Use of special technique called "Brain Storming" for facilitating the production of novel ideas was suggested by Osborn in 1963. Brain storming which consists of having group members suggest ideas as rapidly as possible, prohibiting criticism, encouraging speaking out and evaluating at a later session, hold possibilities that have not yet been thoroughly tested.

Demos and Gowan held that instructor's role in furthering the student's creativity is a protective and nurturing one appears to consist of the following steps or phases.

1. Inspiration: Inspire the student to learn to disagree or emulate

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2. Stimulation: Provide for exciting and new experiences in the curriculum

3. Psychological safety and freedom: Provide a warm, safe and permissive atmosphere in which the creative students feel accepted.

4. Guided discovery: Provide direction to a level and area where it is most effective for learning by independent discovery on the part of the students.

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

3. How will you foster creativity among your students?

……………………………………………………………………

…………………………………………………………………..

7.11.2 Knowledge Essential to a Teacher on Creativity

The following guidelines are offered for the teachers for the promotion of creativity in children.

1. Inspire the students to learn to disagree constructively.
2. Inspire the students to emulate creative persons.
3. Provide for exciting experiences to the students.
4. Provide a safe, permissive and warm environment.

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5. Develop students' ideas through constructive criticism and through referral to competent authorities.
6. Provide necessary guidance and counseling for developing motivation and overcoming emotional fears.
7. Allow the students to ask unusual questions.
8. Show consideration to imaginative and unusual ideas of the structures.
9. Show pupils that their ideas have values.
10. Evoke originality in thinking.

7.12. ANSWERS TO CHECK YOUR PROGRESS

1. Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with environment.

2. Creativity is an adventurous thinking or a getting away from the main trace, breaking out of the mould, being open to experience and permitting one thing to lead to another. Creativity lies in producing more associations and in producing more that are unique.

3. Promoting creativity among children like, Freedom to respond, Opportunity for ego involvement, Encouraging originality and flexibility, Providing appropriate opportunities, Developing healthy habits among children, Proper organization of the curriculum and teaching by example.

7.13. LET US SUM UP

Intelligence is a sort of mental energy, in the form of mental or cognitive abilities, available with an individual which enables him to handle his environment in terms of adaption to face novel situation as effectively as

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possible. The major theories of intelligence are unitary theory, Spearman's two factor theory, Thorndike's multifactor theory, Thurston's Group factor theory and Guilford's structure of intellect. Intelligence can be assessed using intelligence tests. Intelligence tests may be classified broadly as individual tests and group tests. Creativity in terms of divergent and lateral thinking has been discussed. Varied creative dimensions such as fluency, flexibility, originality, elaboration etc. have been discussed with examples. Some characteristics which are manifest in a creative child such as curiosity, persistence, original thinking, etc., are indicators of creative potential. The reasons why a child gets blocked in creative processes are also presented.

7.14 KEY WORDS

INTELLIGENCE, MECHANICAL INTELLIGENCE, SCHOLASTIC ACHIEVEMENT,CREATIVITY

7.15 SELF ASSESSMENT QUESTION AND EXERCISE

1. Explain the two factor theory of intelligence and mention its significance

2. Differentiate between unifactor and multifactor theories of intelligence, giving an example for each.

3. Describe Thurston's group factor theory and its contribution.

4. Devise exercisers to develop the following creativity dimensions in your class children. Establish a scoring criteria fluency, originality, flexibility, originality which reflect the characteristics of these periods.

7.16 SUGGESTED READINGS

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UNIT-VIII - PERSONALITY

8.1 INTRODUCTION

In this unit, we are going to study the definition, characteristics and influencing factors of personality and major theories to personality. We are also going to understand the Assessment of Personality and Projective tests in personality.

8.2 OBJECTIVES

This unit is meant to help you learn the concept, learning and maturation, factors affecting learning, plateau of learning, Individual differences, Memory and forgetting, Motivation.

After going through this unit, you would be able to:

- define Personality.
- explain the factor theories of personality.
- explain the Psychodrama test.

8.3 PERSONALITY

8.3.1 MEANING OF PERSONALITY

The term personality is derived from the Latin word ’persona’ which means the mask worn by the Roman actors. In this sense, personality means the individuals as seen by others. The term personality is used in so many different ways that a detailed discussion is neither possible nor desirable in the present context. However, some of the important

definitions are given which may throw light on the meaning of the term "personality".

8.3.2 DEFINITION OF PERSONALITY

- According to Allport, "Personality is the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to the environment".
- In the word of Cattle, "Personality is that which permits a prediction of what a person will do in a given situation".
- Eysenck views personality as, "a stable and enduring combination of a person's various physical and mental aspects".
- According to Guilford, "an individual's personality is his unique pattern of traits a trait is any distinguishable, relatively enduring way in which one individual differs from another".
- Hartman defines "personality is an integrated organization of all the pervasive characteristics of an individual as it manifests itself in local distinctions from others".
- McDougall defines personality as "a synthetic unity of all mental features and their interplay".
- According to Murray, Personality is a temporal configuration.
- Watson regards personality as "the sum of activities that can be discovered by actual observation over a long enough period of time to give reliable information".

Therefore, personality is the individual's physique, psychological aspects such as intellect, emotion and behavior, and social aspects, which determine his unique adjustment to the environment.

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Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Define Personality.

……………………………………………………………………………

……………………………………………………………………………

8.4 CHARACTERISTICS OF PERSONALITY

The following are some of the important characteristics of personality are, Personality is a self-consciousness, Personality is dynamic, Personality is a product of heredity, Personality is adjustable, Personality is a unique and specific, Personality is organized, Personality functions as a whole, Personality is the social stimulus of the individual, Personality is the combination of both inner and outer qualities of an individual, Personality is the combination of id, ego and superego and Personalities include cognitive, cognitive and affective behavioral patterns.

8.5 THEORIES OF PERSONALITY

Psychologists have developed several theories of personality to study the meaning and comprehensive nature of personality. The following theories of personality are discussed in these sections.

- Type approach : Jung

Spranger

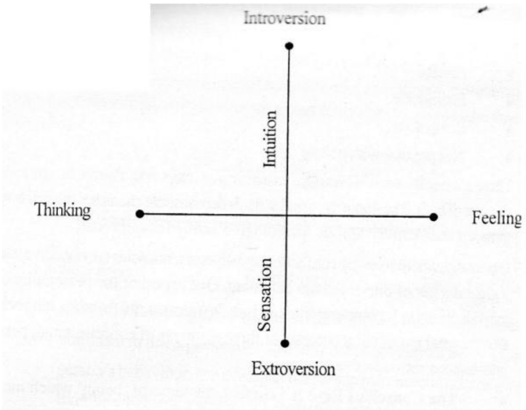
- Trait approach : Allport

Cattell

- Type-cum-Trait approach : Eysenck
- Psycho analytic approach : Freud

8.5.1 Jung's Type Theory of Personality

Jung considered personality in terms of introversion and extroversion concepts which have become part of our everyday speech. Jung tended to think in terms of opposites or polarities. According to Jung, mental activities take four dominant forms: Sensation, thinking, intuition and feeling. Thinking and feeling are polar opposite and both tendencies are always present in the individual at the same time. If his or her dominant mental activity is thinking, the individual's unconscious tends towards feeling. Similarly, sensation and intuition are opposite. Both are operative in the individual at the same time.



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General Characteristics of Extroverts

- Fluent in speech, Free from worries, Likes to work with others, Friendly and Not easily embarrassed.

General Characteristics of Introverts

- Better at writing than at speech, Inclined to worry, Likes to work alone and Rather reserved.

There are hardly a few downright extroverts or introverts. People in general are a mixture of both. The majority of individual demonstrate characteristics of both the introvert and extrovert and are accordingly classified as ambiverts.

Obviously, where so many conflicting and diverse tendencies are operative, there is a great danger of one-sided development. One aspect of the personality of the individual tends to become dominant and totally overshadows the other. Jung believed that the total personality consists of three elements of conscious ego, personal unconscious and collective unconscious.

- **The Conscious Ego:** It is in fact, the sense of 'being' which includes conscious aspects of thinking, feeling and remembering.
- **The Personal Unconscious:** It includes repressed and suppressed experiences of the individual which are accessible to the conscious. It also includes the experiences of the individual which he has in his social environment.
- **The Collective Unconscious:** It is primitive in nature. It is the reservoir from which all other systems emerge.

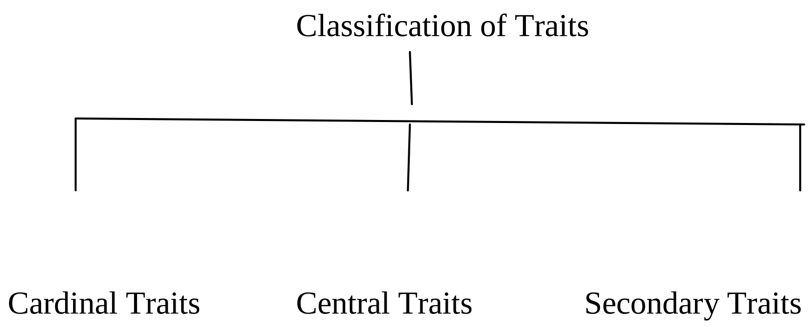
8.5.2 Spranger's Type Theory of Personality

Edward Spranger, a German Philosopher divided human beings on the basis of values or interest in the following six categories:

- **Theoretical:** Persons who are theoretical in nature, neglect social and political participation.
- **Economic:** Persons who are interested in money-hoarding.
- **Aesthetic:** Persons who love beauty and are busy in sensuous gratification.
- **Social:** Persons who are interested in social activities.
- **Political:** Dominating and desirous of power.
- **Religious:** Persons who devote themselves to religious activities and mysticism.

8.5.3 Allport's Trait Theory of Personality

George W. Allport propounded the trait theory of personality. He analysed about 18,000 terms and identified 4591 traits for describing human behavior of a personality. Accordingly, he described personality as a 'dynamic organism within the individual of those physical systems that determine the unique adjustment to his environment'.



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- **Cardinal Traits:** A cardinal trait is the dominant trait. Those traits are so dominant in one's personality that they influence almost every aspect of a person's behavior. For example, if a person has cheerfulness as a cardinal trait, he will bring a sense of cheerfulness into all situations. A perusal of history makes one conclude that Mahatma Gandhi was a lover of Ahimsa (non- violence). This trait was visible in nearly every aspect of his life. Gandhi had a firm belief in truth and this trait was expressed in all his programmes. Emperor Ashoka was very pious and his pious trait was reflected in the pursuit of the welfare of his subjects and developing virtues of piety in them.
- **Central Traits:** Central traits ordinarily describe a person, for instance traits like honesty, kindness, submission etc.
- **Secondary Traits:** Secondary traits appear in only a relatively small range of situation' they are not considered strong enough to be regarded as integral parts of one's personality.

8.5.4 Cattell's Trait Theory of Personality

Cattell used a statistical technique known as 'Factor Analysis' to study the structure of personality. It makes a correlation. Starting from nearly 4000 traits, he found out 16 factors as the building blocks of personality i.e. the characteristics in terms of which an individual's personality can be described and measured through his sixteen personality factors inventory consisting of multiple-choice items. Out of those factors, 12 are independent factors and the remaining 4 are partially independent factors. Those 16 factors are known as source factors since they are unitary and independent affecting much of the overt personality to a very great extent.

According to Cattell, “Personality is that which permits a prediction of what a person will do in a given situation”. He classified traits into the following four categories.

- **Common traits:** Certain traits are found widely distributed in general population or among all groups. Those traits are called common traits. Common traits are aggression, cooperation and honesty.
- **Unique traits:** Unique traits are possessed by particular individuals as temperamental traits, emotional reactions etc.
- **Surface traits:** Surface traits are those traits which can be easily recognized by overt manifestation of behavior. Among the surface traits, mention may be made of the traits of curiosity, dependability, honesty, integrity and tactfulness.
- **Source traits:** Source traits are the underlying structures or sources that determine the behavior of a person.

8.5.5 Eysenck’s Hierarchical Theory of Personality

Eysenck postulated his Personality theory which is an attempt to synthesis the type and trait approaches. He defined type as a group of correlated traits. According to Eysenck, each personality type is net result of behavior organization at four hierarchical levels such as

- Specific response level
- Habitual response level
- Trait level
- Type level

- **Specific response level:** The particular responses to any single act constitute the lowest level in the hierarchy.
- **Habitual response level:** Similar responses of an individual to similar situation constitute the habitual response level of behavior organization.
- **Trait level:** At this stage the habitual acts which have similarities are organized to form groups called traits.
- **Type level:** At the highest level of behavior organization, personality types are formed. A group of correlated traits give birth to a definite

Trait Level

↓

Type Level

↓

Habitual Response Level

↓

Specific Response Level

8.6 ASSESSMENT OF PERSONALITY

The methods for assessment of personality are broadly classified as

1. Objective Method 2. Subjective Methods 3. Projective Methods

- **Objective Method:** Include physiological measures as well as behavior observed in the laboratory in everyday situations and rating by acquaintances.
- **Subjective Method:** Include any form of self-report like autobiography, self-rating, interview, personality inventories, questionnaire, aptitude tests, interest inventories and attitude scales.
- **Projective Method:** Include Rorschach Ink Blot Test, Thematic Apperception Test, Word Association Test, Depth Analysis, Expressive Behaviour etc.

However, two techniques of personality assessment i.e. personality inventory and projective techniques are more frequently used than others. In the selection of military personnel, situations tests are used. Personality inventory is a popular method of personality assessment. It requires self-description of thoughts, feelings and actions.

Some of the important methods of assessing personality are described in this section. They are:

- Interview
- Observation
- Case study
- Rating scale
- Questionnaire
- Personality inventory
- Sociometry
- Projective Techniques

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8.6.1 Interview

An interview may be defined as a face to face verbal exchange in which one person i.e. the interviewer attempts to elicit information on a variety of topics from the interview. Interview is used for a variety of purpose and as such there are various types of interviews.

- The assessment or evaluative interview for determining the fitness of a person for admission, for a job or for scholarship etc.
- The personality assessment interview of a student for finding out the status of development of his personality
- The diagnostic interview for getting some information about the home, environmental and school situations of the student or the client
- The introductory interview for preparing for further interview
- The informative interview for giving some information to the students on the subjects or careers etc.
- The research interview for collecting data about a problem
- The administrative or disciplinary interview for finding out the causes of indiscipline and taking further action and
- The counseling interview for helping the counselee or the student in gaining insight into the problem and assisting him solving the same.

8.6.2 Observation

Observe is one of the most ancient and widely used instrument of assessing personality. Observation has been defined as, 'measurement without instruments'. In education, observation is the most commonly employed of

all measurement techniques. Even today, it is our common experience to notice that farmers feel the breeze, watch the sky, sun, moon and stars, all to determine what the weather is likely to be and what season is approaching.

8.6.3 Case Study

It is one of the methods of measuring personality. Case study aims at studying everything about something over a period of time. P.V. Young says "Case study is a method of exploring and analyzing the life of a social unit, be that a person, a family, an institution, culture group or even entire community". Good and Hatt defines, "Case study is a way of organizing social data, so as to preserve the unitary character or the social subject being studied. Expressed some what differently, it is an approach which views any social unit as a whole".

A case study is known as case history of the individual because it is the analysis of the most important aspect of the child. The analysis is in the form of past record, present position and future possibilities. The complete and detailed study of a case may involve the use of observation, interview, and use of various tests like intelligence, aptitude, interest and personality test.

Types of Case Study

There are three types of Case Study. They are:

- Case studies of individuals
- Case studies of institutions and
- Case studies of communities.

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8.6.4 Rating Scale

Ruth Strang writes "Rating is, in essence, directed observation". Barr and others defines, "Rating is a term applied to expression of opinion or judgment regarding some situation, object or character. Opinions are usually expressed on scale or values. Rating techniques are devices by which such judgments may be qualified". A rating scale is a method by which we systematize the expression of opinion concerning a trait. The ratings are done by parents, teachers, a board of interviewers and judges and by the self as well. These rating scales give an idea of an individual.

Types of Rating Scale

The following are the major types of rating scales:

- Descriptive rating scale
- Numerical rating scale
- Graphical rating scale

Descriptive rating scale: The rater puts a check ( ) in the blank before the characteristics or trait which is described in word or phrase.

Example:

- Has this pupil initiative?
- Willing to take initiative
- Shows their originality
- Quite inventive

- Very dependent on others

Numerical rating scale: Here numbers are assigned to each trait.

Example: Leadership quality in the classroom

Excellent Very Good Average Below Poor Very poor

Good Average

It is a seven point scale, the number 7 represents the maximum amount of those traits in the individual; 4 represent the average amount.

Graphical rating scale: This is similar to the descriptive scale and the difference lies only in the way it is written. This is also called 'Behavioural statement scale'.

Example: Social attitude

Anti Self Has no Usually Strongly

Social Centered Positive Social centered Altruistic

Attitude

8.6.5 Questionnaire

Good and Hatt point out, "In general, the word questionnaire refers to device for securing answers to questions by using a form which the respondent fills in himself".

Barr, Davis and Johnson define questionnaire as a "systematic compilation of questions that are subject to a sampling of population from which information is desired".

Types of Questionnaire: A questionnaire may contain two kinds of items:

- **The closed or structured form**
- **The open-end or unrestricted form**

The closed or structured form: This form requires short and check responses. It may provide for making 'Yes' or 'No', or just a 'check' from a list of suggested responses.

The open end or unrestricted form: As the name of the form indicates, the respondent is at liberty to express his attitudes, interests, preferences and decisions in his words because no clues are provided.

8.6.6 Personality Inventory

A personality inventory is essentially a standard set of questions about some aspects or aspects of the individual's life history, feeling, preferences or activities presented in a standard way and scored with a standard scoring key. It resembles a questionnaire in several aspects like administration etc. However, a questionnaire is a general device and can be used for collecting all kinds of information. But, a personality inventory is specially designed to collect information about the personality of an individual. The number of available inventories is very large. Here, we shall be concerned primarily with a few of the most widely known inventories.

Minnesota Multiphasic Personality Inventory (MMPI)

It consists of 550 items and is used for persons of 16 years of age and above. Each item is printed on a separate card. The subject has to sort the cards into three groups, True, False and cannot say. The item is classified under 26 heads, such as health, religious attitudes, delusions, phobias etc. Items can be grouped in separate scales to score nine personality traits. The MMPI items range widely in content, covering such areas as: health, psychosomatic symptoms, neurological disorders and motor disturbances; sexual, religious, political and social attitudes; educational, occupational, family and material questions and much well-known neurotic or psychotic behaviour manifestation. The MMPI is one of the several most widely used inventories. A shortened version consisting of 336 items is also available for emergency use.

8.6.7 Sociometry

Sociometry was designed by J.L. Moreno and Helen Jennings. Through these tests, we come to know what other members of the group feel the subject whether they like him or not. The member of the group may be asked to name in order to preference one or two individuals with whom they would like to work or play. According to Jennings, "Sociometry may be described as a means of presenting simply and graphically the entire structure of relations existing at a given time among members of a given group. The major lines of communication or the pattern of attraction and rejection in its full scope are made comprehensive at a glance". Sociometric studies have been made of many types of social groups including classroom groups. Being peer-rating rather than rating by

superiors, sociometry adds another dimension to the understanding of social relationship.

For example, consider a group consisting of 10 students. They are asked to write his first choice about some significant and pertinent type of social setting. They may be asked questions like this:

- Whom would you like to sit next to you in the classroom?
- With whom do you enjoy most?
- With whom would you like to work in the laboratory?
- With whom would you like to walk home?

In the above example, the individual has to name only one person of his choice. Data may be tabulated as under:

- Let the member of the group be numbered from A to J.
- Write choosers in the vertical column and chosen in the horizontal column.
- Add the number of each choice.

An individual may be asked to make the second choice in order of performance. Tabulated data may be interpreted as under:

- A detailed study of the choices made
- The 'isolates' and the 'stars' may be looked for. An isolate is one whom nobody chooses. Of course, he is not rejected. A 'star' is made a member of the group who receives most of the choices
- A triangle shows three persons selecting each other. This may be an evidence of cliques, or sharp divisions in the group. As per the tabulated data, we may draw the figure to represent it.

8.7 PROJECTIVE TECHNIQUES

Projective techniques are used to study the conscious motivation of personality. Lindzey (1961) defines, "A projective techniques is an instrument that is considered especially sensitive to covert or unconscious aspect of behavior, it permits or courage a wide variety of subject responses, it is highly multidimensional and it evokes usually rich response data with a minimum of subject awareness concerning the purpose of the test. Drever defines, "A projective technique is the interpretation of situations and events, by reading into them our own experiences and feeding".

There are many projective tests. Some of them are:

- Rorschach Ink Blot Test.
- Thematic Apperception Test
- Word Association Test and
- Sentence Completion Test

8.7.1 Rorschach Ink-Blot Test



Rorschach ink blot projective test is most popular and widely used. It was developed by Hermann Rorschach. Perceptual approach is the basis of test. The perception of an individual is influenced by the emotional and social make up, when he is asked to perceive a figure which is not well defined.

The test material is made up of ten ink-blot patterns. Five of these are in black and white, two are black and red and three are multi colored.

Administration of the Test: The cards are presented to the subject one at a time and in a prescribed sequence. The subject is asked to look at each and tell the examiner, what he has seen on each card, that it might be for him and what it makes him think of. All the responses are taken down verbatim. If the subject is unresponsive of does not speak anything, encouragement is given by using words like most of the people have seen more than one thing. It is always better to get more than one response as long as he desires for.

Interpretation: Since the picture in the card itself is highly ambiguous, the examinee's perception of it is determined to a very large extent by own mental nature. He is usually unaware of the motivations that prompt his responses. The psychologist interprets the examinee's responses not so much by the things named by the subject, but what aspects of the picture promoted him. Some perceive the card as a whole, others perceive the minute details. Some emphasize color, others form. All these have meaning, concerning the personality of the subject. Thus, the actual responses are studied and stored for different points of view and set of symbols are used for most of the concepts. These scoring categories are named as (1) Location (2) Content (3) Time (4) Determinants and (5) Originality.

Location: Location refers to the part of the blot or whole blot with which the subject associates each response. The symbol W, D, d and S are used for scoring the location responses.

The symbols stand as follows:

W - Indicates that the subject is seeing the card as a whole

D - Indicates large details

d - Indicates small details

S - Indicates the subject response to the white spaces within the main outlines.

Content: This refers to what is seen by the subject and not the manner of its perception. The responses of the subject are categorized as human figures, animals, objects, landscape etc.

Time: It means reaction time or response time. Four types of calculation are done with respect to time i.e. Total response time, average response time, average reaction time and total reaction time. On the basis of these calculations, the personality of the subject is assessed. If the average reaction time is more than 11/2 minutes, the individual is suffering from the severe inhibitions and so on.

Determinant: Determinant refers to whether the response was determined by color, by shading by the form and movement.

The colored cards are emotionally stimulating and to color shows the emotional warmth of the person and he is impulsive in nature.

Originality: For each of 10 cards, certain responses are scored as popular by symbol P, because of their common occurrence, while some other

responses are uncommon (original). The percentage of these original and popular responses can be taken as the subject's level of intelligence.

To conclude, we are to depend on all the five categories of interpretation, to know finally all about the person or his personality.

8.7.2 THEMATIC APPERCEPTION TEST

This test consisting of perception of certain pictures in a thematic manner revealing imaginative themes is called Thematic Apperception Test. Ferguson describes this commonly used projective technique under the head, "The imagination approach". This test was developed by Murray and Morgan.

Test Material: This test consists of 30 pictures which portray human beings in a variety of actual life situations and one blank card. These pictures are vague and indefinite. 10 of these cards are for male, 10 for female and 10 for both. In this way, the maximum number of pictures used with any subject is 20. The test is usually administered in two sessions, using 10 pictures in each session.

Administration: The picture is presented on at a time. The subject is told clearly that this is a test of creative imagination and that there is no right or wrong response. During the administration, cheer the subject up. As he writes the story describing that situation or the cause of that situation on the picture, he has to take care of the following aspects, while knitting the story.

- What is going on in the picture?
- What has led to this scene?

- What would likely happen in such a situation?

In making up the stories, the subject unconsciously projects so many characteristics of his personality. Here, each picture is to be shown for about a minute and the person is expected to write a story in 3 to 4 minutes. There is no time to think. Therefore, the stories express his own life natural denies, likes, and dislikes, ambitions, emotions, sentiments etc. its special value lies in its power of exploring the underlying hidden drives, complexes and conflicts of the personality of his subject by carefully interpreting of the given response.

Interpretation: Analysis and interpretation is to be made in one of the several ways depending on the view point of the examiner and the purpose of testing. But, in all instances, the detail of the stories must be interpreted against the facts already known about the personality being studied. The system of scoring and interpretation takes account of the following:

- Hero of the story
- Needs and conflicts of the hero
- Theme of the story
- The content of the story
- The style of the story
- Unusual responses
- The test situations as a whole
- Particular emphasis or omission
- Subject attitude towards authority and sex
- Emotional expression
- Outcome-conclusion of the story – happy and unhappy, comedy etc.,

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As a whole, the theme contributes more than single response towards interpretation. Moreover, the global view of one's personality should be based upon the responses of all the 20 pictures shown to the subject and expertness of the examiner.

8.7.3 CHILDREN'S APPERCEPTION TEST (CAT)

The Children's Apperception Test (CAT) is a projective personality test used to assess individual variations in children's responses to standardized stimuli presented in the form of pictures of animals (CAT-A) or humans (CAT-H) in common social situations. In a supplement to the CAT— the CAT-S—the stimuli include pictures of children in common **family** situations such as prolonged illnesses, births, deaths, and separations from parental figures. The CAT is used to assess personality, level of maturity, and, often, psychological health. The theory is that a child's responses to a series of **drawings** of animals or humans in familiar situations are likely to reveal significant aspects of a child's personality. Some of these dimensions of personality include level of reality testing and judgment, control and regulation of drives, defenses, conflicts, and level of autonomy. The CAT, developed by psychiatrist and psychologist Leopold Bellak and Sonya Sorel Bellak and first published in 1949, is based on the picture-story test called the **Thematic Apperception Test** (TAT). The TAT, created by psychologist Henry A. Murray for children (ten years old and older) as well as adults, uses a standard series of 31 picture cards in assessing perception of interpersonal relationships. The cards, which portray humans in a variety of common situations, are used to stimulate stories or descriptions (orally or in writing) about relationships or social situations and can help identify dominant drives, emotions, sentiments,

conflicts and complexes. The examiner summarizes and interprets the stories in light of certain common psychological themes.

In creating the original CAT, animal figures were used instead of the human figures depicted in the TAT because it was assumed that children from three to ten years of age would identify more easily with drawings of animals. The original CAT consisted of ten cards depicting animal (CAT-A) figures in human social settings. The Bellaks later developed the CAT-H, which included human figures, for use in children who, for a variety of reasons, identified more closely with human rather than animal figures. A supplement to the CAT (the CAT-S), which included pictures of children in common family situations, was created to elicit specific rather than universal responses. Like the TAT and the Rorschach inkblot test, the CAT is a type of personality **assessment** instrument known as a projective test. The term projective refers to a concept originated by Sigmund Freud. In Freud's theory, unconscious motives control much of human behavior. Projection is a psychological mechanism by which a person unconsciously projects inner feelings onto the external world, then imagines those feelings are being expressed by the external world toward him or herself. As opposed to cognitive tests, which use intellectual and logical problems to measure what an individual knows about the world, projective assessments such as the CAT are designed to be open-ended and to encourage free expression of thoughts and feelings, thereby revealing how an individual thinks and feels.

The CAT, which takes 20–45 minutes to administer, is conducted by a trained professional—psychiatrist, psychologist, social worker, teacher or specially trained pediatrician—in a clinical, research, or educational setting. The test may be used directly in therapy or as a **play** technique in

other settings. After carefully establishing rapport with the child, the examiner shows the child one card after another in a particular sequence (although fewer than ten cards may be used at the examiner's discretion) and encourages the child to tell a story—with a beginning, middle, and end—about the characters. The examiner may ask the child to describe, for example, what led up to the scene depicted, the emotions of the characters, and what might happen in the future.

In a projective test such as the CAT, there is no right or wrong answer. Thus there is no numerical score or scale for the test. The test administrator records the essence of each of the stories told and indicates the presence or absence of certain thematic elements on the form provided. As in the TAT, each story is carefully analyzed to uncover the child's underlying needs, conflicts, emotions, attitudes, and response patterns. The CAT's creators suggest a series of ten variables to consider when interpreting the results. These variables include the story's major theme, the major character's needs, drives, anxieties, conflicts, fears, and the child's conception of the external world.

8.7.4 DRAW-A-PERSON TEST

The Draw-a-Person test (DAP, DAP test, or Goodenough–Harris Draw-a-Person test) is a psychological projectivepersonality or cognitive test used to evaluate children and adolescents for a variety of purposes.

Developed originally by Florence Goodenough in 1926, this test was first known as the Goodenough Draw-a-Man test. It is detailed in her book titled Measurement of Intelligence by Drawings. Dr. Dale B. Harris later revised and extended the test and it is now known as the Goodenough–Harris Drawing Test. The revision and extension is detailed in his book Children's Drawings as Measures of Intellectual Maturity (1963).

Psychologist Julian Jaynes, in his 1976 book The Origin of Consciousness in the Breakdown of the Bicameral Mind, wrote that the test is "routinely administered as an indicator of schizophrenia," and that while not all schizophrenic patients have trouble drawing a person, when they do, it is very clear evidence of a disorder. Specific signs could include a patient's neglect to include "obvious anatomical parts like hands and eyes," with "blurred and unconnected lines," ambiguous sex and general distortion. There has been no validation of this test as indicative of schizophrenia. Chapman and Chapman (1968), in a classic study of illusory correlation, showed that the scoring manual, e.g., large eyes as indicative of paranoia, could be generated from the naive beliefs of undergraduates. Likewise, Harris found no validity in personality testing through human figure drawing. He rejected the use of "an elaborate theory of symbolism" to interpret the stylization of features, instead preferring to let the child lead with a simple "Tell me about it" after the drawing.

Test administration involves the administrator requesting children to complete three individual drawings on separate pieces of paper. Children are asked to draw a man, a woman, and themselves. No further instructions are given and the child is free to make the drawing in whichever way he/she would like. There is no right or wrong type of drawing, although the child must make a drawing of a whole person each time — i.e. head to feet, not just the face. The test has no time limit; however, children rarely take longer than about 10 or 15 minutes to complete all three drawings. Harris's book (1963) provides scoring scales which are used to examine and score the child's drawings. The test is completely non-invasive and non-threatening to children, which is part of its appeal.

The purpose of the test is to assist professionals in inferring children's cognitive developmental levels with little or no influence of

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other factors such as language barriers or special needs. Any other uses of the test are merely projective and are not endorsed by the first creator.

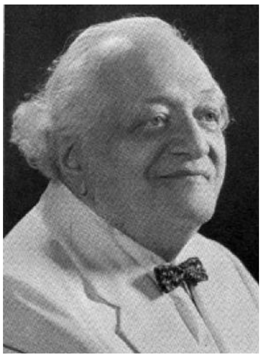
To evaluate intelligence, the test administrator uses the Draw-a-Person: QSS (quantitative scoring system). This system analyzes fourteen different aspects of the drawings (such as specific body parts and clothing) for various criteria, including presence or absence, detail, and proportion. Goodenough's original scale had 46 scoring items for each drawing, with 5 bonus items for drawings in profile. Harris's scale had 73 items for male figures and 71 for female figures. More recent versions use 64 scoring items for each drawing. A separate standard score is recorded for each drawing, and a total score for all three. The use of a nonverbal, nonthreatening task to evaluate intelligence is intended to eliminate possible sources of bias by reducing variables like primary language, verbal skills, communication disabilities, and sensitivity to working under pressure. However, test results can be influenced by previous drawing experience, a factor that may account for the tendency of middle-class children to score higher on this test than lower-class children, who often have fewer opportunities to draw.

To assess the test-taker for emotional problems, the administrator uses the Draw-a-Person: SPED (Screening Procedure for Emotional Disturbance) to score the drawings. This system is composed of two types of criteria. For the first type, eight dimensions of each drawing are evaluated against norms for the child's age group. For the second type, 47 different items are considered for each drawing.

8.7.5 PSYCHODRAMA

Developed by Psychiatrist Dr. J. L. Moreno (1889- 1974) from the 1920s onwards, psychodrama was the first recognised method of group

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psychotherapy and is practised in more than 100 countries. Psychodrama is fully accredited as a psychotherapy by the United Kingdom Council for Psychotherapy (UKCP). It has an extensive literature of more than 6,000 publications, plus many national and regional journals and associations around the world and has contributed ideas and techniques used in many other forms of psychotherapy. Psychodrama is a holistic, strengths-based method of psychotherapy in which people are helped to enact and explore situations from their own life - past, present and future. The scenes enacted may be based on specific events in a person's life, their current or past relationships, unresolved situations, desired roles or inner thoughts and conflicts. The method is typically used in group settings, with group members taking on the various roles in the drama as needed. Witnessing and participating in each others' personal stories can generate feelings of deep understanding and trust amongst group members.

Each psychodrama addresses the concerns of the person who is in focus. The range of issues may be wide. The person who shares their work is chosen sociometrically by the group, highlighting the group concern. Hence all members of the group also share in the work in a personal way.
Psychodrama can, for example, help people to better understand themselves and their history, resolve loss and trauma, overcome fears, improve their intimate and social relationships, express and integrate blocked thoughts and emotions, practice new skills or prepare for the future. Psychodrama allows for the safe expression of strong feelings and, for those who need it, the practice of containing emotions. As participants move from 'talking about' into action, opportunities arise to heal the past,

clarify the present and imagine the future. Psychodrama can offer a wider perspective on individual and social problems and an opportunity to try out new behaviours.

Each psychodrama includes:

a. ***The protagonist:*** The person whose story or issue is presented through guided dramatic action.
b. ***The auxiliary egos:*** Group members who assume the roles of significant others in the drama. This may include significant people, objects or even aspects of the self or a person's internal world,
   e.g. 'my optimistic self' or 'my internal critic.'
c. ***The audience:*** Group members who witness the drama and who may become involved in auxiliary roles.
d. ***The stage:*** The physical space in which the drama is conducted.
e. ***The director:*** The trained psychodramatist who guides participants through each phase of the session.

Some of the core techniques in psychodrama include role reversal, role taking and role play, the double, the mirror technique, surplus reality, the empty chair, scene-setting and enactment. The method of Psychodrama was created by Psychiatrist Dr. **Jacob Levy Moreno** (1889-1974). Psychodrama developed from Moreno's interest in philosophy, mysticism and theatre, and his observations of group interactions and relationships. Moreno was among the first to recognise the healing power of a group, including the importance of self-help groups, where each person becomes the healing agent of the other without any special training or knowledge other than his or her own experience.

ROLE PLAY

Role training Role training is typically used to practise new skills and responses. It is particularly useful as a method for helping the protagonist to expand their role repertoire – the range of skills and responses they can call on to meet life's challenges.

8.8 STRENGTHS AND WEAKNESSES OF PERSONALITY TESTS

There are two unique strengths of projective tests. First, the testing stimuli are relatively ambiguous to people. As such, the person does not know how the test provides information to the examiner. This indirect method helps in disguising the real purpose of the test and it reduces the possibility that people will engage in intentional deception. Second, the indirect method used in projective tests allows circumventing conscious defenses, thus making them sensitive to aspects of personality that are hidden. However some of the disadvantages include that projective tests are poorly standardised, in large part because there are no established methods of administration, scoring, and interpretation. In particular, the scoring of these tests often relies on the skill and clinical intuition of the examiner, thus making their reliability quite low.

Evidence suggests that extensive training in a specific scoring system leads to satisfactory levels of inter judge agreement. A more serious problem concerns the interpretation of a person's scored responses to a projective test. Interpretation of such tests depends all too often on the personal insights and intuition of the clinician. There is also little convincing evidence to support the validity of projective tests . Therefore, psychologists are well advised not to base an entire diagnosis solely on

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projective tests. Projective tests should be considered in the context of other information obtained through interviews, case histories, and self-report tests. Despite the above mentioned problems, many clinical psychologists continue to apply these methods as a means to explore a person's unconscious conflicts, fantasies and motives. They are more capable of revealing human personality in greater depth and detail than some of the personality inventories where considerable faking is possible. People have more faith in interpreting projective tests than personality inventories. A survey of the member of the Society for Personality Assessment found that Rorschach and TAT were ranked as second and fourth, respectively, in terms of usage among all psychometric instruments.

8.9ANSWERS TO CHECK YOUR PROGRESS

1. According to Guilford, "an individual's personality then, is his unique pattern of traits-a trait is any distinguishable, relatively enduring way in which one individual differs from another".

8.10 LET US SUM UP

Personality is the individual's physique, psychological aspects such as intellect, emotion and behavior, and social aspects, which determine his unique adjustment to the environment.

Two techniques of personality assessment i.e. personality inventory and projective techniques are more frequently used than others. In the selection of military personnel, situations tests are used. Personality inventory is a popular method of personality assessment. It requires self-description of

thoughts, feelings and actions. A projective technique is the interpretation of situations and events, by reading into them our own experiences and feeding. Integrated personality emerges from the synthesis of seven traits – psychology, needs, interests, attitude, temperament, aptitude and morphology.

8.11 KEY WORDS

PERSONALITY, TAT, CAT, PSYCHODRAMA, ROLE PLAY

8.12 SELF ASSESSMENT QUESTION AND EXERCISE

4. List out the characteristics of personality.
5. Discuss any two methods of assessing personality.
6. Discuss any two projective techniques of assessing personality.
7. Elucidate the Psychodrama technique.
8. Briefly Explain the Children's Apperception Test(CAT).
9. Give short note on TAT.

8.13 SUGGESTED READINGS

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UNIT-IX - EXCEPTIONAL CHILDREN

9.1 INTRODUCTION

In this unit, we are going to discuss about the types of exceptional children, need for special education. We are also going to understand the problems of special children and learn the-remedial measures for the special children

9.2 OBJECTIVES

After going through this unit you will be able to:

- identify the exceptional children and distinguish different types of exceptional children.
- understand the abnormal categories of children in the classroom.

9.3 MEANING AND SCOPE OF EXCEPTIONAL CHILDREN

Exceptional children are those children who deviate significantly from the normal ones. Crow and Crow (1973) have tried to explain the term exceptional as it a typical one applied to a traitor to a person possessing the trait up to the extent of deviation from normal, possession of the individual warrants or receives special attention his fellows and his behaviour responses and activities are thereby affected.

According to Telford and others (1977) they write "the term exceptional children refer to those children who deviate from the normal in physical degree that they require special and educational services to develop their maximum capacity.

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Check your progress at

Notes: a)Write your answer in the space given below.

b) Compare your answer with the one given at the end of the unit.

1. Define exceptional children.

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9.4 TYPES OF EXCEPTIONAL CHILDREN

Considering general welfare and educational angle for the proper adjustment and development of the children, the following types of children are usually included in the term exceptional children.

1. Physically disabled or handicapped children

2. Mentally disabled or mentally handicapped children

3. Gifted children

4. Creative children

5. Delinquents or socially handicapped

6. Emotionally handicapped or problem children

7. The learning disabled children

8. Backward children or slow learners

Physically disabled children are classified into (a) Visually impaired children (b) aurally impaired (c) Hearing impaired children (d) Speech Handicapped children / Mentally Retarded children.

9.5 CONCEPT OF SPECIAL EDUCATION

Special education is a modified programme which involves some unique tools, techniques and research efforts in improving instructional arrangements to meet the need of exceptional children. It is not a totaly different programme which is assigned for the normal children, but it adds a sort of design proposed to assist the gifted children, physically and mentally handicapped and socially retarded children. As it is a planned and systematically mentioned arrangement, majority of average children are not grouped into this category of education.

Features of Need and Importance :

1. The special education helps both the average children and exceptional children in special

classes.

2. The gifted children are not satisfied in the normal classes. They do not and scope to exercise their cognitive abilities. They also feel the tasks very easy and complete it very soon than others for which they show behavioural problems. But their talent is daly recognised and the development of skills and potentialities take their full shapes while they are included in homogenous groups with a special treatment.

3. Sometimes the hearing impaired, visually impaired, orthopaedically handicapped and mentally retarded need special treatment. So special education helps them to keep pace with the academic activities with their environment.

4. Special education is not only useful to the exceptional children, but also it assist the teacher to know the leaners and their learning difficulties.

5. Special education stimulates the children to participate in different co-curricular activities. This type of involvement provides the children to highlight their leadership qualities and creative urges.

6. Special education tends the children to refresh their intellectual abilities and know the various streams of knowledge, which they feel difficult in normal class situation.

7. Due to facilities including special building features, special equipment and special literary materials, special education prompts the children to be more motivated. It develops readiness in learning.

9.6 GIFTED CHILDREN

A gifted child is mainly an exceptional child. According to Kirk the exceptional child is that child who deviates from the average or Normal child in mental, physical, or social characteristics to such an extent that he requires a modification of school practices or a special educational service, in order to develop to his maximum capacity. From this definition it is presumed that all the gifted, backward, physically handicapped and mentally retarded, belong to the category of exceptional children.

Normally gifted children are superior in reasoning power to that of other children. They show promise in music, dancing poetry, creative writing, dramatics, graphic arts, creative scientific exteriority and an unusual imagination. They do not find intellectual stimulation in the traditional class-work, school books, syllabus and methods of teaching adopted for the average children.

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Lucito- The gifted are those children whose potential, intellectual powers and abilities are at such high ideational level in both productive and evaluative thinking that it can be reasonably assumed that they could be future problem solvers, innovaters and evaluators of the culture if adequate educational experiences are provided to them. :

Office of Education, U.S.A 1969- Gifted and talented children are those, identified by professionally qualified persons, who by virtue of out standing activities are capable of high performance. Those are the children who require differentiated educational performance and/or services beyond those normally provided by the regular school programme inorder to realise their contributions to self and society. High performance might be manifested in any on a combination of those areas i.e. (1) General intellectual ability, (2) Specific academic aptitude, (3) Creative or productive thinking, (4) Leadership ability, (5) Visual and performing arts

(Psychomotor ability).

Education of the Gifted

The gifted child feels embarrassed in the curriculum, method of teaching, books and other school conditions which are meant for the average. They possess intense individuality and versatility. The ordinary teacher faces problems, as the gifted are not satisfied with much detailed explanation and simple representation of the facts. In a study by H.A Carroll it has been viewed that the gifted children have superior ability to reason, to generalize and to synthesise. According to Gesell and his colleagues, superior infants are emotionally sensitive to their environment and display intelligent behaviour. Martinson has referred that when the gifted are admitted in an ordinary school, they make only a little more progress than the normal children. Because they relapse into a normal scheme for which most of

them become even backward. Various studies have shown that they are curious, intuitive, lover of independent judgment and advanced knowledge in many fields.

Parents of gifted children have also reported certain characteristics like quick understanding, insatiable curiosity, retentive memory, large vocabulary, unusual interest in numbers and relations. So there is a greater need of planning the education of the gifted which will utilize their potentialities and avoid wasting their energy.

9.7 MENTALLY RETARDED

The constitution under Article 15, 17 and 29 makes sufficient provision for special protection of any class of persons who need such protection. Those provisions in the constitution and provisions for equality of opportunity under Article 14 adequately ensure certain measures of equality to enable, socially, economically or physically handicapped citizens to ḷive along with their more fortunate brethren. The true measure of equality or equal opportunities would be to provide more specialised education to such members of the society.

However, the concept of mental retardation is undergoing a rapid change. In most parts of the world the presence of a retarded child in the home is no longer regarded as something to be ashamed of. It is now regarded almost like a common disease and is at present taken as a multi dimensional and multidisciplinary concept. Apart from the physiological and psychological basis, the sociological basis is gaining prominence. Mental retardation is a term used to identity on observed performance deficity. It is a condition failure to demonstrate age appropriate intellectual and social behaviour. Over many years definitions of mental retardation has been proposed, debated, revised and counter proposed. This process

has not been ended and still the debate is going on. Since mental retardation is a concept that affects and is affected by people in different disciplines, it has been defined form different perspectives.

American Association on Mental Retardation (1992) : Mental retardation refers to substantial limitations in present functioning. It is characterized by significantly sub-average intellectual functioning existing concurrently with related limitations in two or more of the following adaptive skill areas : i) Communication ii) Self-care iii) Home living iv) Social skills v) Community use vi) Self-direction vii) Health and safety viii) Functional academics ix) Leisure and work x) Mental retardation manifests before the age of 18

Teaching Strategies of the educable mentally retarded :

There are various programmes, training, techniques and treatment have been developed to meet the needs of the educable mentally retarded children. Some of the research findings suggest greater effectiveness of concrete objects and experiences rather than words alone. It has been also proved to be very effective to use the teaching machines for meeting the individual needs of the retarded. The machines are typically suitable because of the advantage of immediate feedback and reinforcement gained through the programmed approach. They tend to rise the level of motivation as they can deliver tangible rewards for giving correct responses and for completing a sequence of study.

But various activity programmes which have been developed, seem to be more appropriate for the educable mentally retarded. Let us have a suitable presentation below.

1. Individualisation :

Considering special methods in the education of the educable mentally retarded, the most important thing in the teaching will be the

individualisation. Individualisation does not mean that such children will receive individual instruction. Though it can be possible with a small number children. Yet it implies that each child will be allowed to proceed at his own rate according to his own strength and abilities. One should not think that there is no importance of group activities for such children as individualisation is emphasied rather opportunities to participate in the group should be orgnised, so that they can develop correct social attitudes and learn some useful social virtues.

2. Learning by doing :

Another principle of special education for these children is that they should learn by doing the thing by themselves. Activity methods will be employed which will put emphasis on learning through experience. Because of their intellectual deficit, they can learn better, where ideas are expressed in concrete situations, which they can relate to the world they know teaching should be made as far as possible, through materials which can make appeal to the senses.

3. Need for learning readiness :

Readiness to learning is an important factor for effective learning. These children have the ability to learn to read, write and count provided that the way is prepared for the introduction of these subjects through appropriate readiness programmes. The educator should have sufficient patience to wait till the child is psychologically and intellectually ready to receive the knowledge. Education should be imported to them in such a way they can receive though slowly but steadily.

4. Repetition :

There is a saying that practice makes a man perfect. This can be possible through repetition. As the mentally retarded children have poor memory in comparison with the normal students, teaching method should provide a

considerable amount of repetition, for making learning permanent. However repletion should not be encouraged without insight and understanding of the subject. There is no justification of repetition for rote memory. Education should motivate the children and make the material interesting so that memory can be enhanced.

5. Short periods :

Mentally retarded children have limited power of consideration. Therefore formal teaching periods should be kept fairly short but at the same time, it is remarkable to know how long they can preserve when they find the subject matter stimulating.

6. Concrete problems :

It will be admitted that mentally retarded children generally show lack of imagination and foresight. At the same time it is difficult for them to transfer the learning experience of one situation to a similar but new and unfamiliar one. Therefore real life problems should be introduced. So that the immediate application of that will help.

7. **Graded Curriculum :**

These children learn slowly than the average child the work undertaken in the basic subjects of reading and arithmetic must be graded. This will ensure steady progress and feeling of success. Therefore there is the necessity for the production of special books for slow learners and until these are prepared, the class-teachers should prepare materials by themselves.

8. Projects :

Project is one of the most suitable methods of teaching to the mentally retarded. There is controversy with regard to the introduction of project as to how this can be undertaken without disturbing the basic subject programme. The arrangement can be done with the core programme of

language and number with a peripheral programme including subjects like history geography and nature study etc. within this peripheral subjects, projects can be developed which can provide scope for activity methods and at the same time a process of integration of the basic teaching subjects.

9.8 HEARING IMPAIRMENT

Hearing is vital in every aspect of our daily existence, if one is unable to hear, he would at best find it difficult to participate in his school or college, his job, his community and family unless some special adoptions are made. . Most children learn through their hearing from a very early stage. A new born infant responds to sounds by starting or blinking. At a few weeks of age, the infant listens to quiet sounds, recognises his mother's voice and begins to enjoy hearing his own vocationalisations. During the first year of life, the normal infant learns to recongise sounds. He is able to discri temeaningful sound form backgrounds noise loud sound from soft etc.

As the child grows, he develops language by constantly hearing language used around him. He associates the age sounds with innumerable activities and events and this feels the importance of sound.

Alice strong : "The child who is born with litter or on hearing or who has suffered the 'loss' early in infancy before speech and language patterns are acquired is said to be deaf. One who is born with normal hearing and reaches the age where he can produce and comprehend speech but subsequently loses his hearing is described as deafened. The heard of hearing are those with reduced hearing acuity either since birth or acquired at any time during life.

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Educational Programmes of hearing impairment :

Both the teachers and parents should co-operate for identification of hearing handicapped children but the majority may not be detected since they hear conversations, speech and learn to talk at an average age. A loss of 30 or 40 decibel often goes unnoticed and the deviant behaviour that develops may be attributed to low intelligence or emotional problems.

The hearing loss is suspected when the teacher finds the symptoms such as the child has, a slight speech defect, the child is lazy, the child seems dull. The child ignores or confuses the directions, the child shows a day dreaming attitude and the child is educationally retarded. But it is essential that hearing problem should be recognized very early in the child's life as the first years are crucial for the development of speech and understanding.

It can be difficult to assess young children's hearing and crude methods are often used for screening purpose such as whispering. Sound bells and turning folks and watching for the child's orienting response.

9.9 EDUCATION OF THE BLIND

Most of the institutions impart Primary Education coupled with training in a few Simple handicrafts Music forms an integral part of the curriculum. The Central Government has set up a comprehensive National Centre for the Blind at Dehra Dun. This center includes a central Braille press which publishes textbooks and other reading material in Braille. The center also has a workshop for the manufacture of Braille appliances which produce the basic equipment needed for the education of the Blind it If the child is totally blind, he should be sent to the special school for the blind where he would learn through the Braille system. Those who are partially sighted should be suggested to sight conservation classes where large print text

books and similar other devices are used to teach them. In the schools, adequate facility for light and boldly printed books should be provided. Blind children experience obstacles to input and feedback, they depend on sound for information about events at a distance. Not all sounds are equally helpful, only sound patterns which have acquired meaning and significance for the child can help him to orientate.

It was pointed out that Children whose vision is so impaired that they can see objects at a distance of 20 ft. which a normal eye can see at a distance of 200 ft. are legally blind. The totally blind children read Braille. Blindness affects the life of the individual in the physical, mental, social, educational and vocational aspects.

Usually for blind children, going to school implies admission to a residential school for the blind (Braille classes). Of late, some attempts have been made to integrate them with the normal children by admitting them to normal schools but the coverage of blind population of the students in this respect is not significant. A blind school aims at assisting the blind child, through the use of special methods and aids, in his adjustment to the world in which he has to live as an adult. Schools for the blind usually provide for activities such as dancing, counting, and dramatics Special equipment and methods of teaching are employed for the education of the blind, Education Particular attention is given to practice on type writer because it permits written communication with seeing.

Role of the school and the Teacher in the Education of students with Visual Impairment.

1. Children with visual impairment may be seated in the front rows so that they can read the writing or the blackboard without any difficulty or pressure.

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2. Such children may be given training in listening with comprehension.
3. Books with bold letters may be provided to such children.
4. Radio and T.V, broadcasts may be arranged for such children.
5. Efforts may be made to procure cassettes in different curricular areas. State Institutes of Education or State Councils of Educational Research and Training or District Institutes of Education and Training or Centers or Institute of Educational Technology may be approached for this purpose.
6. Blind children need Braille books;
7. Doctors may be consulted from time to time.
8. Co-operation of the parents be sought in the follow-up work.

9.10 THE ORTHOPAEDICALLY HANDICAPPED

The orhtopaedically handicapped children have a heterogeneous group of disabilities. The crippled and polio stricken children also belong to this category. The orthopaedic impaired children are affected by their muscular or skeletal system and central nervous system. In this case the child looses their mobility and movement in daily life. In Indian context the children due to the onset and infection of polio myelities most of them are being paralised which creates serious problems in the society. Most of those children face problems either in their legs or in their hands. Normally they are crippled. Children with mild impairment adjust themselves in learning process and in their life situations. But the severely disabled require special furniture, devices and materials to be adjusted in their daily living skills and in schools.

Pankajam-2009 – "According to the Individual with Disabilities Education Act (IDEA) the definition of orthopaedic impairment as an ailment that can be caused by congenital anomaly including diseases or impairments caused by cerebral palsy, amputations, fractures, etc."

Another comprehensive definition may be presented here, orthopaedically handicapped are those who suffer from a defect that is accompanied by one or another type of deformity that inhibits the normal exercise of his/her muscles, joints or bones.

Role of the teachers in the educational programmes of orthopaedically handicapped :

In order to integrate the orthopaedically handicapped children in normal schools, teacher

should have to consider the following points.

1. The class rooms must be larger than those for regular pupils.
2. The teacher should see that the educational progress made by these children must be according to their mental and physical limitations.
3. Needs of each individual child must be met effectively.
4. School equipment must be adjusted to his deformity i.e., table, chair etc., may specially designed.
5. The orthopaedically handicapped may be give a vocational training.
6. Liberal widow space should be provided in each class room.
7. The auditorium, lunch room etc. must be within the reach of the orthopaedically handicapped children.
8. Health and physiotherapy programmes must be very regular in these schools.

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9.11 EDUCATIONAL GUIDANCE

According to **Arthur J. Jones**, educational guidance is concerned with assistance given to pupils in their choices and adjustment with relation to schools, curriculum, courses and school life.

Educational guidance makes the individual to adapt himself/herself in the most favourable environment for his/her education

If a student is not competent enough to make a wise selection he/she must be guided in the selection of a course of studies according to his / her special aptitude and interest. A wrong choice can make him/her a misfit for life. A right choice can lift him/ her up.

The ultimate aim of education is to help the individual to develop well developed harmonious personality which is possible if individual attention is paid. Educational guidance is also useful in selecting the job for any individual according to his or her intelligence, aptitude, abilities and skills. It puts the right student in the right course and job. Therefore, he/she will be in need of guidance throughout his/her life.

Educational guidance economizes the time and energy of the teacher as well as the student. Educational guidance provides knowledge and information to become a good citizen and to shoulder the burden of his/her country.

In short, *educational guidance provides opportunities for the students to become better, for the school to raise its tone to the highest Level.*

9.12 VOCATIONAL GUIDANCE

According to Myers, vocational guidance is a form of human conservation which is aimed at wise use by the individual of priceless native capacity and the results of costly training provided by the school for the good of the individual and of society.

Vocational guidance is very useful for the students studying in the schools. In the schools we have to help the child to make a proper choice of the subjects. A child should choose his/her subjects according to his potentialities and abilities. Vocational guidance does not end with the school or college but it is required even after school.

Vocational guidance is also very necessary from the health point of view. Choice of vocation should be according to one's physical strength health and constitution. Unhealthy, unsuitable and uninteresting workers are responsible for the accidents and they become non-productive and a drain upon the production of others. Then the employer suffers a huge loss. There is a great loss for both employer and employee. If a man selects a vocation within his potentialities and capacities, he/she can find fullest development and is always happy and well adjusted. His/her work is easier and his/her production and pay are greater. It is a great benefit for both employer and employee.

Vocational guidance helps to discover potential geniuses and to make use of them for the benefit of the society. Vocational guidance' helps the individual to adjust himself better to the environment. Intelligent and profitable choice is possible only when the children know well the requirement of vocations and their own abilities through proper guidance: School-is the only agency that can provide proper guidance to everyone.

9.13 PERSONAL GUIDANCE

Personal guidance aims at helping a person to know and resolve his/her personal needs to adjust himself/herself to the environment. A person is able to perform in his environment when his/her needs are satisfied. His/her problems may be simple but he/she does not know how to deal with these problems. There guidance takes its role. Not only in facing

problems, in approaching life activities, individuals need guidance service. "Personal' is a broader term which includes physical, psychological, emotional, educational, vocational, social, spiritual needs of an individual. Personal guidance helps the individual to look into his/her each need systematically and logically.

An individual should concentrate on physical growth. The growth and function of the organs in the body are very much essential. A child may be comparatively short in height or having deformity. To overcome this deficiency or complexity, the child needs guidance. The efficiency of the organs may be increased through constant training and practice. Girls are more concerned with their physical appearance. Adolescents need awareness of their bodily changes. All these persons are in need of guidance.

Individuals should attain emotional maturity. Fear, anxiety, stress, frustration, disappointment etc., should be handled by the individuals properly. They may be given guidance to overcome such emotional upset for which they may be given personal guidance. Some children are introvert; some are extrovert. Some children take all situations easy; some take all happenings seriously. To maintain mental health, they need to get guidance.

Individuals are in need of socialization. They should have social maturity. They have to work in groups. Friendly approach, sharing with others, teamwork, given and take policy, recreation, play in groups etc., develop social behaviour of individuals. Individuals, because of their innate nature may not properly mingle with others. They need guidance to develop social amicability.

Individuals needs and wants are different. Their interests, ambitions, aspirations, attitudes, aptitudes and values are different from one another.

Each individual needs guidance based on his/her intensity of issues. But all are given guidance for their personal adjustment.

9.14 PROBLEMS OF EDUCATIONAL GUIDANCE

In advanced countries, educational and vocational guidance are part and partial of the whole educational system. But in our country not much progress could be made in this field because of the following reasons.

1. Financial constraints.
2. Want of properly trained personnel.
3. Non availability of standard psychological tests suitable for this country.
4. Dearth of employment vocational guidance becomes meaningless if persons trained vocation remains unemployed for a considerable period of time.

9.15 ANSWERS TO CHECK YOUR PROGRESS

1. Crow and Crow (1973) have tried to explain the term exceptional as it a typical one applied to a traitor to a person possessing the trait up to the extent of deviation from normal, possession of the individual warrants or receives special attention his fellows and his behaviour responses and activities are thereby affected.

9.16 LET US SUM UP

Exceptional children are those children who deviate significantly from the normal ones. In other words children who show a considerable deviation from what is supposed to be the normal or average to their group are labeled as exceptional children. The deviation may fall on either side and

therefore, the exceptional maybe significantly above average in the various aspects of human growth and development Such children are so exceptionally inferior or superior to the normal children in terms of physical development, mental ability, social. behavior and emotional reaction that they experience a sort of maladjustment in life: They need special care education for their proper adjustment and maximum utilization of their abilities.

In accelerating the special education programme, extra time may be devoted by the same teacher or by an expert in the concerning field when a project is taken for a delinquent child the child may be directed to attend his regular classes. He should also participate all the curricular and co-curricular activities carried out by the school. In addition to this he may be, assigned, with extra consultation hours in the school with the counsellor or school guidance: officer or with the specific teacher to go through his special problems. The children with some difficulties maybe included in this class but there is no necessity for the ordinary children to attend-it. With such kind of designed programmes the exceptional children achieve a great deal success their personal and academic endeavours

9.17 KEY WORDS

EXCEPTIONAL CHILDREN, GIFTED CHILDREN, MENTALLY RETARDED, HEARING IMPAIRMENT, VISUAL IMPAIRMENT

9.18 SELF ASSESSMENT QUESTION AND EXERCISE

10. Define Exceptional Children.
11. What do you mean by gifted children?
12. List out the characteristics of gifted children.

13. Give short note on Personal Guidance.
14. Give short note on Vocational Guidance.
15. Briefly Explain about Mentally Retarded and the Remedial Programmes by the teachers at a school.
16. Elucidate Gifted Children.

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UNIT X - STUDENT DEVELOPMENT AND DIVERSITY

10.1 INTRODUCTION

In this unit, we shall discuss about the various stages of development. We will also study the role of the teacher in facilitating the growth and development of school going children.

10.2 OBJECTIVES

This unit is meant to help you learn the concept, the dimensions and the stages of development.

After going through this unit, you will be able to:

- explain the Principles of development
- explain the importance of culture, community and gender.

10.3 GENERAL PRINCIPLES OF DEVELOPMENT

Development is a product of interaction

Development is a process which is the result of constant interchange of energy within the organism and his environment. Thus hereditary forces interact with environmental forces and the process of development goes further.

Development follows an orderly sequence

The rate of growth and development is different in different individuals depending upon a number of factors, but it does follow an orderly sequence in all the individuals. The psychologists have reported three important directional trends in the process of development.

- Cehaulo caudal: Development starts from head and proceed toward heel. We see that development of head of a child is well advanced as compared to other parts of the body.
- Proximodigital: Development starts from the central part of the body. Then it spread to other outer or more distant part of the body. We see that an infant uses his shoulders and elbows first to reach an object and then be using his fingers and wrists.
- Locomotion: Locomotion develops in a sequence in all the individuals belonging to different cultures of the world. The rate of development for different infants may be different but every infant will have to pass through these stages at all cost. For example, an infant first learns to crawl, then to sit, then to stand and finally to walk. No infant can walk directly in the first stage.

Development is a continuous process

Development is a continuous process which begins from the time of conception in the womb of the mother and continues till death. But this process is not always smooth or gradual. Ups and down are most of the times seen in every stage of development. There are spurts in physical growth and psychological functioning. Sharp growth rate is seen at the time of spurts. For example, a sharp increase in height and weight in the early adolescent period, a fast rise in vocabulary during pre-school period, sudden improvement in problem solving abilities during adolescence and so on.

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Development goes from bilateral to unilateral trend

Infants up to the age of 2.5 years are both of their hands with equal ease. Then they learn to use any of their hands preferably. Similarly, in the beginning of cycle learning we use both the hands to control it but when we become fully experts in cycle learning we can control the cycle single handedly. Thus, development is a process of specialization also.

Inter – Relationship of different aspects of development

Different aspects of development are interdependent and interrelated. For example child's social behavior is interrelated with the physical development. If child is physical handicapped, his emotional development may also be slow with aggressive development in some emotions. Similarly, if social development of an individual is poor, his mental or physics development will also be slows.

10.4 IMPORTANCE OF DEVELOPMENT IN EDUCATION

Concept of development tasks and special needs of adolescents

When a child reaches the age of adolescence, he developed some special ends and objectives related to the need of that particular age. These ends are called development tasks. They are inescapable requirement imposed by the person himself or by the society. An adolescent must be competent to achieve these ends. Failure to achieve competency has a crippling effect on the personality development of the adolescent.

Havinghurst proposed a system of development tasks for American adolescents. He described in detail about the developmental process and its

relation to educational objectives. Development task has been defined by Havinghurst as a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and success with later tasks while failure leads to unhappiness in the individual disapproval by the society and difficulty with later tasks.

- Achieving matured social relations
- Need for affection social and
- Need for independence
- Participating in adventurous and risky tasks
- Need for maintaining health and body building
- Need for friendship with opposite sex
- Requirement due to physiological changes
- Need for utilization excess energy

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. List out the principles of development.

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10.5 BRAIN AND COGNITIVE DEVELOPMENT

10.5.1 STAGES OF DEVELOPMENT

Based on certain developmental characteristics psychologists have classified human life span into the following developmental stages:

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Parental stage: Germinal period (first 2 weeks) Embryonic period (2 to 8 weeks)

(from conception to birth)

Fetal period (9 week to birth)

II postal stages

- Infancy from birth to 2 years
- Childhood

  (iii) Early childhood from 3 to 6 years

  (iv) Later childhood from 7 to 11 years
- Adolescence
- Adulthood

  (iii) Early adulthood from 20 to 29 years

  (iv) Later childhood from 30to 50 years
- Senescence from 50 to 60 years
- Old age from 60 years onwards

Physical Development

Physical growth refers to a process which begins about bodily a physiological changes-internal as well as external in an organism from the conception till his death. General pattern of physical growth:

- Increase in height and weight

- Changes in body proportions

A new born baby has the body length of 16 to 18 inches and weight 6 to 8 pounds. Boys weigh more than girls. Generally, growth is rapid and the head increases disproportionately in size. Weight increases by hundred percent in the first six months and upto five years as an average of four pounds increase per year will be seen. Height also increases at the rate of four inches per year in the first 4 years. At the age of 5, a child will be about 35” to 40” tall and weigh 30 to 35 pounds. Of course, girls will be shorter and lighter. At the age of 3, the lungs and heart grow in size. Bigger muscles develop faster and earlier than smaller muscles. It is because of manual dexterity cannot be found below 3 years of age.

10.5.2 Cognitive and Language Development

Trying to teach a child which is actual, too advanced or too difficult for him does not result in a better educated child. In fact, it is likely to harm him emotionally. One of the indexes to growth of intelligence is to the point of vocabulary, which has two phases, words used and words correctly recognized. Increase in vocabulary in general is a characteristic of mental growth and reaches its high points in the twenties, although it is possible that vocabulary ability increases slightly throughout most of adult life. Another index to the development of intelligence is the development of thinking through the stages of enumeration, description and interpretation. The teacher should be conscious of these stages and in teaching should try to stimulate the higher orders of thinking.

Adolescence is a period of rapid mental development. Ability to form concepts matures. He is able to generalize his experiences. Abstract concepts are formed and understood. Numerical ability reaches significant

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growth. The adolescent is capable of doing abstract reasoning. Consequently he likes debates and discussions and cannot take anything for granted. Therefore, he is seen to argue with elders, a tendency that may be labeled "impertinence and impudence". The vague and diffused interests of childhood get distilled into concentrated and specific interests during adolescence. Boys like to read stories of privation and adventures and girls read stories of home life, love and beauty. An interest in fine-arts is common in many adolescents and so also in sports and games. Many adolescents are day-dreamers. Normal and occasional day dreaming is essential to let out pent up emotions. But, if it amounts to "withdrawal", it becomes dangerous.

10.5.3. Emotional Development

Adolescence marks a period of emotional instability and imbalance. A sudden change from great elation to total dejection may be seen in adolescent behaviour. The self-assertive instinct and sex instinct reach maximum development. Adolescents crave for recognition and love. They want to be consulted and feel insulted if their options are not taken into account in deciding policies either at home or at school. The gregarious instinct becomes dominant. The period of early adolescence (13-15) is more troublesome than late adolescence (16-19).

"In the world there is no worse nuisance than a boy at the age of fourteen… If he talks with childish lips, he is called a baby and if in a growth-up way he is called impertinent. In fact, talk at any kind from him is resented… He becomes painfully self-conscious, and when he talks with elderly people he is either unduly forward or else so unduly shy that he appears ashamed of his existence. He becomes the devoted slave of anyone

who shows him consideration. While it is the height of bliss to receive the kind looks of women and never to suffer their sight" (Tagore).

10.5.4 Social Development

Social growth helps in improving one's personal relationship in learning and how one gets along with people successfully. Physical and mental growth contributes social development which is giving a person more capacity for dealing effectively with social situations. Physical and mental weakness and defects tend to maladjusted person. A child is very individualistic in early childhood, but living with people socializes him so that he evolves from extreme individualism to being a socialized person. Leadership is an evidence of social maturity. Students who are school leaders tend to be characterized by better scholarship, higher socio-economic status. Home and school environment can make a child feel frustrated, resentful, over dependent, inferior and insecure in many ways or the opposite. In school, children are accepted or rejected by others. Socio-metric methods may be used to determine the social acceptance and rejection of children within a group or class.

10.5.5 Moral Development

The term moral is derived from the Latin word 'mores' meaning manners, customs and folk ways. Morality is indissolubly linked with the social system. The children have to learn what is good and what is bad, what is right and what is wrong. The child also has also to learn his duty. All these terms imply clearly that morality has reference to social relationship and social process.

Piaget's views on Moral Development

According to Piaget, there are four stages:

- Anomy (the first five years)
- Heteronomy-Authority (5-8 years)
- Heteronomy-Reciprocity (9-13 years)
- Autonomy-Adolescence (13-18 years)

10.6 IMPORTANCE OF CULTURE, COMMUNITY AND GENDER

There has been a constant warfare between hereditarians and environmentalists in regard with the contribution of gender, demography, class and caste in the development of personality. There are some psychologists who overemphasize the environmental influences to the exclusion of heredity in the growth and development of personality and there is another group of psychologists who claim the superiority of heredity over environment in the development of personality. As a matter of fact, no definite line of demarcation can be drawn between the contribution of heredity and environment in the development. This is an old problem which has not yet been conclusively solved.

Gender and Genetic Determinants

Like begets like. Even a layman knows that a cat gives birth to kittens, lions have cubs and human beings have babies. Children, generally, resemble their parents or relatives. But we also find that in many cases children do not resemble their parents. There are numerous instances where intelligent parents have dull children or handsome parents have ugly

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children. This variation is universal in nature and is called the principle of variability of inheritance. There are two principles: one is of resemblance and the other of variability.

Culture, Demography, Class and Caste

Culture refers to total life activities of a society. What people think or do and feel constitute the culture of a society. It is the physical way of life, social institutions and psychology of the people fused together. Biological inheritance is the same in human beings all over the world but it is the difference in their cultural conditions which develops distinctive personality characteristics in the individuals of different cultural groups. We can easily identify people reared in different cultures by the personality patterns they possess. English, American, African and Indian can be identified by their cultural backgrounds. India is big country having many sub-cultures within a broad culture. The personality of individuals within these sub-cultures is moulded by the customs, beliefs, rituals and religious faiths and early childhood training of children. Culture is a great educator of human being sometimes directly and sometimes indirectly by the methods of training and passing on great social heritage, it leaves permanent impression on the personality of the child.

Check your Progress

Notes: a**)** Write your answer in the space given below:

c) Compare your answer with the one given at the end of the unit.

2. Define Culture..

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10.7 ANSWERS TO CHECK YOUR PROGRESS

1. Development is a product of interaction, Development follows an orderly sequence, Development is a continuous process, Development goes from bilateral to unilateral trend, Inter – Relationship of different aspects of development, Development is individualized process, Development is positive and negative both, Development is cumulative, Development proceeded from general to specific, Rate of development differs with sex.

2. It is that complex whole which includes knowledge, beliefs, morals, law, custom and many other capabilities and habits acquired by man as a member of society.

10.8 LET US SUM UP

In this unit, the stages of development and the characteristics of each stage have also been discussed. As you have seen, adolescence is a period of transition between childhood and adulthood. Accompanying it, they face a number of problems. During this period, adolescents are considered neither as children nor as adults. Their status remains ambiguous. They are prone to rebel against authority. What baring these characteristics adolescents have upon the instructional; process and for dealing with their particular problems have also been discussed. What you as a teacher can do to attend to these problems and how you help the development of a balanced personality of your students have also been dealt with in order to create a better understanding of students needs and problems.

10.9 KEY WORDS

DEVELOPMENT IN EDUCATION, EMOTIONAL DEVELOPMENT

MORAL DEVELOPMENT, SOCIAL DEVELOPMENT

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10.10 SELF ASSESSMENT QUESTION AND EXERCISE

1. Define Culture.
2. Describe the importance of development in education .
3. Discuss the personal, social and Emotional Development.
4. Explain the importance of culture, community and gender.

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UNIT – XI - UNDERSTANDING LEARNING PROCESS

NOTES

11.1 INTRODUCTION

In this unit, we shall discuss about various learning approaches. You will also study the importance of Cognitive and Social Learning theories.

11.2 OBJECTIVES

This unit is meant to help you learn and understand learning process effectively. After going through this unit, you will be able to:

- explain the importance of Behavioural Approaches to Learning.
- explain the importance of Cognitive and Social Learning theories.

11.3 IMPORTANCE OF BEHAVIOURAL APPROACHES TO LEARNING

Behaviorism was founded by John B. Watson in the early part of the 20th Century. This was the earliest formulation of a coherent theory of learning, at least in modern Western society. A variety of perspectives emerged over the next few decades including the work of Thorndike, Tolman, Guthrie, Hull, Skinner and others. Educational practices which have these notions at their core include systematic design of instruction, behavioral and performance objectives, programmed instruction, competency-based instruction, and instructor accountability, training for skills and vocations are particularly heavily saturated with learning and being reinforced for "correct responses and behaviors”.

The Behaviourist approach to learning studied changes in behaviour that are caused by a person’s direct experience of their environment, using

the principles of classical and operant conditioning to explain them. The Behaviourist approach made a deliberate effort to be **scientific,** and therefore refused to discuss mental processes that might be involved in learning because they are not observable and could not be studied objectively.

11.4 IMPORTANT CONTRIBUTIONS OF INFORMATION PROCESSING THEORY

Three important contributions of the information processing approach are techniques for analyzing cognitive processing (e.g., “What are the cognitive processes involved in carrying out a cognitive task?”), techniques for analyzing mental representations (e.g., “How is knowledge represented in memory?”), and a general description of the architecture of the human cognitive system (e.g., “How does information flow through the human memory system?”).

Complex Cognitive Processes

A fundamental contribution of information processing theory is cognitive task analysis— techniques for describing the cognitive processes that a person must carry out to accomplish a cognitive task. For example, consider the analogy problem dog : bark :: cat : _____, which can be read as “dog is to bark as cat is to what?” and in which the a-term is “dog,” the b-term is “bark,” the c-term is “cat,” and the d-term is unknown. What are the cognitive processes that a problem solver must go through to solve this problem? Based on a cognitive task analysis, solving an analogy problem can be broken down into five basic steps (Mayer, 1987; Sternberg, 1977):

1. ***Encoding***—that is, reading and forming a mental representation of the words and accompanying punctuation,

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2. ***Inferring***—that is, determining the relation between the a-term and the b-term (e.g., the b-term is the sound that the a-term makes),

3. ***Mapping***—this is, determining what the c-term is and how it corresponds to the a-term (e.g., the a-term is a kind of animal that makes sounds, and the c-term is another kind of animal that makes sounds),

4. ***Applying***—that is, generating a d-term based on applying the relational rule to the c-term (e.g., the sound that the c-term makes is _____), and

5. ***Responding***—that is, physically making the response such as writing "meow" or circling the correct answer ("meow") on a list.

11.5 IMPORTANCE OF SOCIAL, COGNITIVE AND CONSTRUCTIVISTIC VIEWS OF LEARNING

11.5.1 BEHAVIORISTIC / CONSTRUCTIVISTIC LEARNING THEORIES

11.5.1.1 THORNDIKE'S TRIAL AND ERROR LEARNING THEORY

Thorndike's connectionism also referred to as 'trial and error learning' is based on experiments conducted by him. Thorndike spoke of learning as a trial and error process developing neural connections between stimuli and responses. When a stimulus is presented, the organism picks a response and connects it; by repeated trials the organism eliminates the errors and selects the appropriate response for the stimulus and connects it. Learning is a matter of accidental hitting of correct response which is 'stamped in' as a result of satisfaction. A trial is defined by the length of time (or of number of errors committed) in a single reaching of the goal. Animals mostly use trial and error learning. Human beings too resort to it to learn

complex and abstract tasks as well as tasks involving motor skills. According to Thorndike, the law of effect is the basic principle of learning.

Thorndike's Experiment

He placed a hungry cat in the puzzle box. A piece of fish in a dish was kept outside the box. The box could be opened by correctly manipulating a latch. On seeing the fish, the cat became restless and made frantic efforts such as biting, clawing and dashing the walls before the latch moved accidently and the door opened. On subsequent trials such incorrect responses i.e. biting, clawing and dashing are gradually stamped out and the cat was found to have eliminated all the wasteful movements (errors) and it operated the mechanism (latch) with considerable ease in the first attempt itself. This experiment shows that learning is simply selecting and connecting the correct response with the given stimulus by a process of progressive reduction of incorrect responses and stamping in the correct response through trial-and error. If the trials were continued even after learning to do the tasks correctly, efficiency of performance of the cat increased (time taken to finish the task correctly, decreased) and reached the maximum level, after which there was not much in gain in efficiency.

Thorndike's Laws of learning

Based on the findings obtained in his puzzle box experiment, Thorndike enunciated three primary laws of learning viz. law of readiness, law of exercise and law of effect.

1. **Law of readiness**: When any conducting unit is ready to conduct, to allow it do so is satisfying, not to allow it do so is annoying. When any conducting unit is not ready to conduct, for it to

conduct is annoying. Thorndike's law on readiness is a law of preparatory adjustment and not a law about growth.

Educational implications:

a) The teacher should see that the child is motivated to learn before he begins to teach. Motivation is the royal road to learning. Preparatory exercise that will hasten the state of readiness can be given. The teacher should introduce a lesson by relating it to the background experience of the child.

b) Interest inventories and aptitude tests can also be administered to know the entry behavior of the learners, especially in admitting students for specialized courses.

2. **Law of exercise**: When a modifiable connection is made between a stimulus and response, other things being equal, that connections strength increases if it is repeated a number of times. This is called the 'law of frequency'. This is akin to what we mean when we say practice makes perfect.

Another principle governing trial and error is that an act which has just recently been performed has an advantage of being repeated once again, for the simple reason that it is fresh in the experience of the organism. This principle is called 'law of recency'. These two laws of frequency and of recency are grouped together under the name of law of exercise.

3. **Law of effect**: It refers to the strengthening or weakening of a connection as a result its consequences. The law states, "when a modifiable connection is made between a stimulus and a response and is followed up by satisfying stable of affairs, its strength increases; when followed by dissatisfying state of affairs, its strength decreases".

Check your Progress

Notes: a**)** Write your answer in the space given below:

d) Compare your answer with the one given at the end of the unit.

1. State the Thorndike's three laws of learning.

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………………………………………………………………………

11.5.1.2 PAVLOV'S CLASSICAL CONDITIONING THEORY

Russian physiologist Ian Pavlov, during his experimental work on dog's digestive process, accidentally noticed the secretion of saliva in the dog on the sight of food or hearing the footsteps of the caretaker. Conditioning can be defined as "a process in which a neutral stimulus which is not associated with any specific natural response, on pairing with a natural stimulus, acquires all the characteristics of natural stimulus". For example, if food is presented, saliva flows. Food is the 'natural stimulus' (or unconditioned stimulus-U.C.S.) that can elicit the 'natural response' (or unconditioned response-U.C.R.) Salivating. The sound of a bell which is a neutral stimulus, not associated with any specific response originally, when paired with food a number of times, acquires the characteristics of food and starts eliciting the response of salivation, even when presented alone. Now, we say the dog has been conditioned to the sound of bell and we refer the bell sound as 'conditioned stimulus' (C.S) and 'salivation' as 'conditioned response' (C.R.). The classical conditioning of Pavlov is also called 'stimulus substitution' because we substitute a neutral stimulus, through the process of 'contiguity' (occurrence of two events in quick succession). Symbolic representation of classical conditioning is given below:

Stage I (Before conditioning)

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UCS → UCR

(Food) (Natural stimulus) (Salivation)

CS → No specific or unique response

(Ringing of the bell)

Stage II (Process of conditioning)

CS + UCS → CR (Salivation)

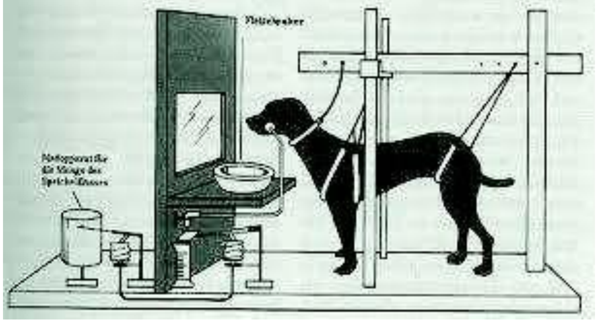
(Bell sound + Food)

Stage III (After conditioning)

CS → CR (Salivation)

(Bell sound)

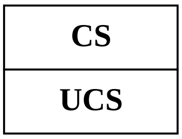
Conditioning appears to the simplest type of learning and the basis for further and more complex types of learning. Most of the animal learning could be explained through the concept of conditioning. Conditioning appears to be an important means of learning among human beings too, particularly in childhood. Simple patterns of behavior, learning of words and their associated meanings, new emotional responses may be all satisfactorily explained using the concept of conditioning.



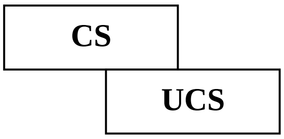
Laws of Conditioning

From his experiment of conditioning, Pavlov derived the following five laws

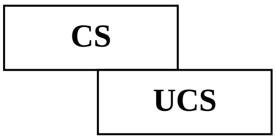
1. Law of causation: According to this law, a conditioned response is established by a series of contiguous pairings of CS and UCS. That is, when the UCS and CS are presented in temporal contiguity (associated in time) a conditional response gets established.



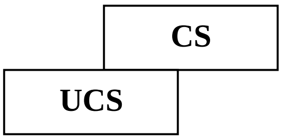
(Simultaneous conditioning)



(Delayed Conditioning)



(Trace Conditioning)



(Backward Conditioning)

(Temporal relationships in conditioning)

Best conditioning occurs when the CS and UCS are presented simultaneously or CS is the signal heralding the occurrence of UCS.

2. Law of experimental extinction: If the CR is elicited without reinforcement by the presentation of the UCS, then the CR gets weakened and finally disappears. Suppose the salivation is conditioned by ringing the bell without presenting the reinforcing agent viz. food (UCS) after a few trails the response (the amount of saliva) gradually reduces and finally the

response may not occur at all. The dog probably thinks that it cannot be fooled any further. However, this disappearance of the CR is not permanent. When the dog is again brought from rest, it once again salivates on hearing the bell. This immediate recovery of conditioned responses is called spontaneous recovery.

3. Law of generalization: Once the CR is established it may be elicited by any stimulus similar to the original CS. If conditioning was established using bell as the CS, the CR will occur even for a buzzer. If fear response is obtained for a policeman, it may be obtained for anybody in Khaki uniform.

4. Law of discrimination (or selective conditioning): A selective CR can be established by selective reinforcement. Suppose a CR is established to a bell sound the same generalization is shown to a buzzer sound also. If the CR that follows the bell sound is reinforcement by presenting the UCS and the CR that follows the buzzer sound is not reinforced then the CR to the buzzer sound gets weakened and becomes inactive.

5. Law of higher order conditioning: The pairing of a neutral stimulus with a UCS results not only in it's becoming a conditioned stimulus for the response but also in it's becoming a reinforcing stimulus in its own right. Thus, what was formally a CS (say bell sound) can be used in a second pairing phase to phenomenon second order or higher order conditioning. Second order conditioning is weak as compared to first order or primary conditioning.

Concept of Reinforcement

Any stimulus is a reinforce if it increases the probability of occurrence of a particular desired response. For example, in Pavlov's experiment, food was presented immediately after the dog heard the bell sound and started salivating. Here to increase the occurrence of the conditioned response viz. salivating on hearing the bell sound food was presented as reinforce.

Thus, reinforcement could be defined as the phenomenon in which a desired response when emitted is strengthened by presenting reinforcement and thereby increasing the frequency of occurrence of that particular response.

Check your Progress

Notes: a**)** Write your answer in the space given below:

e) Compare your answer with the one given at the end of the unit.

2. List out the principles of Ivan Pavlov's classical conditioning theory .

…………………………………………………………………………
…………………………………………………………………………

11.5.1.3 SKINNER'S OPERANT CONDITIONING

B.F. Skinner believed that no stimulus is capable of eliciting a unique response from an organism. It is the organism which emits all kinds of responses spontaneously. For example, a cat without any reason licks its face with its tongue a dog barks a pigeon pecks at dots. All such responses are emitted responses whenever an organism emits a desired response it could be made to occur frequently by suitably rewarding it by presenting a reinforcing stimulus. Thus, reinforcement of desired response is the

essence of operant conditioning whereas in classical conditioning stimulus substitution takes place by pairing the neutral stimulus with a natural stimulus or UCS. Operant conditioning is called type R-conditioning in contrast to classical conditioning in which there is type S (stimulus) conditioning. Skinners box is a cage in which a white hungry rat is placed. A simple response of pressing a lever was chosen as a unit of desired behavior. The movements of the rat were electrically recorded and cumulative record of the behaviour of the rat was obtained. The rat by chance pushed their bar and got a pullet of food it repeatedly pressed the bar and got a pullet of food. After eating that pullet of food it repeatedly pressed the bar and every time got food pullets. Food reinforced the bar pressing responses and soon the rat became conditioned to that response. Reinforcement is central to operant conditioning.

In another experiment conducted on pigeon, the pigeon moves about the cage. It was trained to peck a disk. Every time it pecked, food was supplied. Thus, food reinforced the behaviour of pecking the disk, called an operant. The law of operant conditioning states that, if the occurrence of an operant is followed by the presentation of a reinforcing stimulus, the strength of operant is increased. If the response (operant) is not reinforced, it results in the extinction of the response. Extinction of a response means its becoming less and less frequent. Schedule of reinforcement refers to the pattern according to which reinforcers follow responses. There are mainly two types of schedules. One is continuous reinforcement, in which reinforce is given for every response. The second is intermittent reinforcement, in which only some of the responses are followed by reinforcement. If the intermittent reinforcement depends on the rate at which responses are emitted, this is called a ratio schedule. If, on the other

hand, it depends on the passage of time, it is called an interval schedule. Furthermore, each of the ratio and interval schedule can be either fixed or variable. All these give us four main kinds of schedule.

- **Fixed ratio schedule**: Here, reinforce is given after every fourth or every eighth or every tenth response.
- **Variable ratio schedule**: Here, reinforce is presented after a different number of responses on different occasions and not consistently after a particular number of responses as in the fixed ratio schedule.
- **Fixed-interval schedule**: Here, a fixed interval of time must elapse after one reinforce is given before another can be goal. In this way, when a fixed-interval two minute schedule is in operation, the subject cannot get more that one in two minutes, no matter how fast he responds. Therefore, in such a case he may as well respond only once in two minutes.

Variable-interval schedule: Here, reinforce is given in a variable fashion, sometime sooner and sometimes longer after the previous one. Since, the subject is unaware of when reinforce will come, the only way for him to get all available reinforces as and when they are given would be to respond continuously. Experiments show that in general subjects make more responses per reinforce on any kind of intermittent schedule than on continuous reinforcement. If reinforcement is finally terminated altogether, resistance to extinction is also greater after intermittent than after continuous reinforcement.

11.5.2 COGNITIVE PERSPECTIVES OF LEARNING

We have learnt the behaviorists' perspectives of learning and the theories supporting its insights. The next perspective of educational psychology is

the cognitive perspective. Cognitive psychology is the theoretical perspective that focuses on learning based on how people perceive, remember, think, speak, and problem solve. The Cognitive perspective differs from the behaviorist perspective into two distinct ways. First Cognitive psychology acknowledges the existence of internal mental states discharged by behaviorist. Examples of these states are belief, desire, ideas and motivation (non-observable states).second cognitive psychologist claim memory structures determine how information is perceived, processed, stored, retrieved and forgotten. Cognitive psychology encompasses perception, categorization, memory, knowledge representation, language and thinking process.

Learning by insight theory

Wolfgang Kohler, a German psychologist postulated the theory of learning by insight. This gestalt theory is based on the concept of whole is meaningful than sum of its parts. Similarly, learning is taking place not as a part, but as a whole. Insight is learning that appears to occur in a flash and that involves the solving of a problem. It is a form of problem solving that appears to involve the (often sudden) understanding of how elements of a situation are related or can be recognized to achieve a solution (Wade, 1998).

11.5.2.1 Kohler's Experiment

Kohler (1925) put the Chimpanzee inside a cage. A bunch of bananas were hung from the roof of the cage. A box was placed inside the cage. The Chimpanzee tried to get the bananas by jumping, but could not get due to height. The Chimpanzee finally used the box placed below the hanging banana and climbed on the box and got the bananas. In another experiment,

the Chimpanzee required two or three boxes to reach the banana. The Chimpanzee namely Sultan was able to learn placed of one box on the other and succeeded in getting the banana. In another experiment, a bunch of bananas were kept outside the cage. Two sticks were placed inside the cage. After several trials, the animal joined the two sticks and pulled the bananas in with a stick.

11.5.3. SOCIAL LEARNING - BANDURA

The social learning theory proposed by Albert Bandura has become perhaps the most influential theory of learning and development . While rooted in many of the basic concepts of traditional learning theory, Bandura believed that direct reinforcement could not account for all types of learning. While the behavioral theories of learning suggested that all learning was the result of associations formed by conditioning, reinforcement and punishment, Bandura's social learning theory proposed that learning can also occur simply by observing the actions of others.

His theory added a social element, arguing that people can learn new information and behaviors by watching other people. Known as observational learning (or modeling), this type of learning can be used to explain a wide variety of behaviors.

There are three concepts at the heart of social learning theory. First is the idea that people can learn through observation. Next is the notion that internal mental states are an essential part of this process. Finally, this theory recognizes that just because something has been learned, it does not mean that it will result in a change in behavior.

Let us explore each of these concepts in greater depth.

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1. People can learn through Observation 2. Observational Learning

In his famous Bobo doll experiment, Bandura demonstrated that children learn and imitate behaviors they have observed in other people. The children in Bandura's studies observed an adult acting violently toward a Bobo doll. When the children were later allowed to play in a room with the Bobo doll, they began to imitate the aggressive actions they had previously observed.

Bandura identified three basic models of observational learning:

1. A live model, which involves an actual individual demonstrating or acting out a behavior.
2. A verbal instructional model, which involves descriptions and explanations of a behavior.
3. A symbolic model, which involves real or fictional characters displaying behaviors in books, films, television programs, or online media. Bandura noted that external, environmental reinforcement was not the only factor to influence learning and behavior. He described *intrinsic reinforcement* as a form of internal reward, such as pride, satisfaction and a sense of accomplishment. This emphasis on internal thoughts and cognitions helps connect learning theories to cognitive developmental theories. While many textbooks place social learning theory with behavioral theories, Bandura himself describes his approach as a 'social cognitive theory'.

11.5.3.2 SOCIAL CONSTRUCTIVISM THEORY - VYGOTSKY

The psychologist, Lev Vygotsky shared many of Piaget's views about child development, but he was more interested in the social aspects of learning. Vygotsky differs from discovery learning, which is also based

on Piaget's ideas, in that the teacher and older children play important roles in learning. He argued that all cognitive functions originate in, and must therefore be explained as products of social interactions and that learning was not simply the assimilation and accommodation of new knowledge by learners; it was the process by which learners were integrated into a knowledge community. The teacher is typically active and involved. The classroom should provide variety of learning materials (including electronic) and experiences and the classroom culture provides the child with cognitive tools such as language, cultural history and social context.

The Zone of Proximal Development (ZPD) is a concept for which Vygotsky is well- known. It refers to the observation that children, when learning a particular task or body of information, start out by not being able to do the task. Then they can do it with the assistance of an adult or older child mentor, and finally they can do it without assistance. The ZPD is the stage where they can do it assisted, but not alone. Thus the teacher often serves to guide a child or group of children as they encounter different learning challenges. Vygotsky's observations led him to propose a complete relationship between language and thought. He observed egocentric speech and child monologues such as Piaget wrote about, as well as internal speech. He proposed that speech (external language) and thought have different origins within the human individual. He described thought as non-verbal, and speech as having a pre-intellectual stage, in which words are not symbols for the objects they denote, but are properties of the objects. Up to about age two, they are independent. After that thought and speech become connected. At this point, speech and thought become interdependent, and thought becomes verbal. Thus, children's

monologues become internalized as internal dialog. Vygotsky differed from Piaget in that he considered development after age 2 as at least partially determined by language. He believed that egocentric speech serves the function of self- guidance, and eventually becomes internalized. It is only spoken aloud because the child has not yet learned how to internalize it. He found that egocentric speech decreased when the child's feeling of being understood diminished, as when there was no listener or the listener was occupied with other matters. These ideas, while intriguing, have never been adequately researched, so it is difficult to evaluate their significance.

11.6 ANSWERS TO CHECK YOUR PROGRESS

1. The three laws of learning are
   i. Law of Readiness, ii Law of effect, iii Law of Readiness.
2. The principles of Ivan Pavlov's classical conditioning theory are

   i. Principle of Acquisition, ii. Principle of Extinction, iii. Principle of spontaneous recovery vi. Principle of Stimulus Generalization v. Principle of Discrimination

11.7 LET US SUM UP

In this Unit, we have examined different theories of learning and learning approaches. Factors affecting learning like learner's cognitive abilities, previous experiences and the content of the subject determine the method of learning preferred by the learner. In order to enable the learner to learn by their own learning style, the teacher should have the knowledge of different learning theories as well as their classroom implications. The contribution of these theories had their impact on the process of teaching and learning. Each of the approaches in the learning

theories has added something to the understanding of the learning process which is so complex.

11.8 KEY WORDS

BEHAVIOURAL APPROACH, INFORMATION PROCESSING MODEL, CONSTRUCTIVISTIC LEARNING , COGNITIVE PERSPECTIVES OF LEARNING, SOCIAL LEARNING

11.9 SELF ASSESSMENT QUESTION AND EXERCISE

1. Explain the importance of Behavioural Approach to Learning.
2. Discuss the Constructivistic Learning Theories.
3. Explain the importance of Cognitive and Social Learning theories.

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UNIT XII - MOTIVATION AND LEARNING

12.1 INTRODUCTION

In this unit, we are going to know about the various kinds of motives and the function of motives. We are also going to discuss the achievement motivation. Moreover, this unit also gives us information about the role of failure and success in the classroom context.

12.2 OBJECTIVES

This unit is meant to help you learn the importance and effect of motivation in learning. After going through this unit, you will be able to:

- Describe Robert Gagne's Theory of Hierarchical Learning.
- Explain the Role of Rewards and Punishment In Motivation.

12.3 NATURE OF LEARNING

The knowledge we acquire, the language we speak, the habits, attitudes and skills developed in us are all due to learning. Psychologists defined learning as a relatively permanent change in behavior, which occurs as a result of activity, training, practice or experience. This definition of learning has three important elements:

4) Learning results in change in behavior.
5) It is a change that takes place through practice or experience (Changes due to growth and maturation are relatively independent of activity, practice or experience and hence they are not learning).

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6) Before it can be called learning, the change must be relatively permanent. It must last a fairly long time. But, behavioural changes brought about by fatigue, drugs, illness, warm up etc. are transitory in nature and hence they are not included under learning.

12.4 CONDITIONS OF LEARNING

12.4.1 Robert Gagne's Theory of Hierarchical Learning

Robert M. Gagne was one of those who had turned from the study of basic problem in a laboratory to the practical tasks of training in the air force during World War II. He found that the best known psychological principles like reinforcement are inadequate in their application in certain fields like radar tracing, aerial gunning etc., as a result he proposed a taxonomy of learning known as hierarchy of learning. Gagne proposed that all learning were not alike. He divided learning into 8 types or categories, and arranged them in a hierarchy because; each kind of learning begins with a different capability for performance. The mastery attained in performance of one type becomes the prerequisite for the next higher type of learning.

The varieties of learning that Gagne distinguished are:

1. **Signal Learning**: The individual learns to make a general response to a signal. This is similar to the classical conditioned response of Pavlov.
2. **S-R Learning**: The learner acquires a precise response to a discriminated stimulus. What is learnt here may be connection as enunciated by Thorndike, or discriminated operant conditioning by Skinner.

3. **Chaining**: In this, what is acquired is a chain of 2 or more S-R connections. The conditions for acquiring this have been elaborated by Skinner.
4. **Verbal Association**: This is the learning of chains that are verbal. The conditions for this resemble those for other chains like motor chains.
5. **Discrimination Learning**: The individual learns to discriminate and make a different identifying response to as many stimuli that may response each other in physical appearance.
6. **Concept Learning**: The learner learns to give a common response to a class of stimuli that may so differ from each other widely in physical appearance but have some common characteristics or attributes.
7. **Rule Learning**: A rule is a chain of 2 or more concepts. It helps to control behaviour in the manner suggested by a verbalized rule of the form, "If A, then B", where A and B are two previously learned concepts.
8. **Problem solving**: It is a kind of learning that requires the internal events that are usually called thinking. Two or more previously acquired rules are somehow combined to produce a new capability that depends on higher order rule.

12.4.2 LAWS OF EFFECT AND READINESS

Law of Readiness:

If a bond is ready for its establishment, it has to give satisfaction but not annoyance. If a learner has to learn an action or activity he should be mentally and physically fit for the action he desired. His mental set

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should have the capacity to do the work. A two year boy cannot be admitted in the school since he is not matured enough. A child of one year cannot speak since his vocal cards, larynx are not grown enough. Hence, maturity is essential.

Law of Effect:

If the result of the bond created between stimulus and a response leads to happiness it will strengthen the bond and if his result is contrary the bond will be weakened. A child will be in a happy mood if he finds out correct answers from his mathematical exercises but will be unhappy if the answers are wrong. If a student passes his examination he will feel happy and he will be unhappy if he fails. "Nothing succeeds like success". This proverb is applicable to this law. This law is also called as "**law of stratification and annoyance or reward and punishment".**

12.5 ROLE OF TRANSFER IN LEARNING

Learning is transferable. One kind of learning facilitates other kinds of learning. The influence of previous learning on present is said to be 'transfer of learning'. Transfer helps in optimizing learning. Transfer of learning is defined as the thinking, feeling, habit, knowledge and skill that are carried over from one learning task to another task. The following are some of the definitions given by psychologists

- Sorenson (1948) stated that transfer refers to the knowledge, training and habits acquired in one situation to another situation.
- Peterson M.J. (1957) defined transfer is generalization, for it is the extension of idea to a new field.

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12.5.1 Types of Transfer

Based on the influence of prior learning task on the new task, the following three types of transfer of learning occur, 1. **Positive transfer**: A positive transfer takes place when the previous learning task facilitates the present learning task. For example, the knowledge of addition and subtraction in mathematics facilities the learning of multiplication and division. Learning Urdu may help to learn Hindi. Learning pedaling of tricycles makes the pedaling of bicycles easier. 2. **Negative Transfer**: Transfer is negative when learning in one situation hinders, interferes or workers the learning in another situation. For example, having learned to drive on right-hand side by USA people may find it difficult to drive in India where vehicles are to be driven on the left-hand side.3. **Zero Transfer**: When one learning situation does not influence the learning in another situation significantly, it is said to be zero transfer. For example, learning of mathematics has no effect on the learning of swimming.

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. List three types of transfer of learning.

…………………………………………………………………………

2. One learning of an individual does not influence another learning is said to be __________transfer of learning.

a) Positive b) Negative c) zero

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12.6 MOTIVATIONAL STRATEGIES IN THE CLASSROOM

How to motivate children in the classroom for learning is a crucial problem which concerns all teachers at all stages of teaching. Following are certain common techniques used by teachers to motivate the students in the classroom:

Rewards in the form of prizes, distinctions, grades, decorations etc. generate interest and enthusiasms in pupils and appeal to ego involvement and ego maximization.

a) Use of proper incentives as motivating agents, appropriate to the age group of students e.g. In primary classes, rewards and prizes may operate effectively: in high school classes, praise and blames will be more suitable than rewards
b) Students should be helped to feel the utility of what they learn by relating them to practical life situations
c) Provide feedback to students about their performance, then and there: announce test results in the class possibly the next day itself. This makes the learner motivated to learn and face the next test eagerly. Similarly, teachers not of head, smile, verbal appreciation etc. will serve as feedback in the actual classroom teaching-learning situation, when students present their responses.
d) Goal setting**:** Motivational behavior is always goal-oriented. When the goal is clear and attainable, the students strive hard to reach the goal.
e) Ensuring success to all, at least to some extent**:** Graded assignments should be given such that everyone will have some success initially

and continue their efforts but the talented may claim more success or full success

12.7 ACHIEVEMENT MOTIVATION

12.7.1 McCLELLAND'S THEORY OF ACHIEVEMENT MOTIVATION

The theory of achievement motivation was developed by McClelland and his associates in 1951 at the University of Harvard. The crucial problem of economic disparity among the nations of the world and psychological causes underlying this problem were attacked by McClelland. He rejects the conventional explanation that economic growth can be explained in terms economic variables. According to his view, psychological and sociological factors are major variables affecting economic growth. In his book "The Achieving Society", he advanced his new concept of economic growth of the nation. He argued in his book that the rise of capitalism can not be explained and understood on the basis of economic factors alone. He believes that changes in the fundamental beliefs and attitudes of men gave impetus to economic growth in certain countries.

12.7.2. Intrinsic and Extrinsic Motives

In another classification of motives, they are divided into **"**Intrinsic and Extrinsic**"** motives but, psychologically all motivation is intrinsic. By extrinsic motivation, we refer to certain incentives or reinforcements that are external. The extrinsic incentives may consist of money or a toy or sweet. When a child is assigned a task and told that he would get Rs.10/- on completing it within a specified time, the child puts forth his best efforts to finish the task in time. This is a case of extrinsic motivation.

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On the other hand intrinsic motivation is inherent in the activity itself. In extrinsic motivation, the task is undertaken because it is rewarding. The task leads to goal. But in intrinsic motivation, it is not a means to an end. It is an end in itself. The task is not undertaken for something else but performing itself is satisfying. Children find intrinsic motivation in play. Adults are intrinsically motivated to hear music, go to temples and offer prayer etc. If we play for a trophy or prize money, then it is external motivation. But if we play for the sake of the satisfaction, we derive from it. Then, it is a case of intrinsic motivation.

Relative Efficiency of Extrinsic and Intrinsic Motivation in Education

Reward and punishment, success or failure, use of audio-visual aids, cooperation and competition are all cases of extrinsic motivation. But, when we emphasize rewards and punishment (or success and failure) too much, it may lead to a negative attitude towards the school by the student. This is the limitation of extrinsic motivation. But, when students develop a positive attitude, then it develops an involvement of ego towards the task. They become intrinsically attached to the task. This is permanent and this is a case of intrinsic motivation.

12.8. ROLE OF REWARDS AND PUNISHMENT IN MOTIVATION

Rewards and punishment are the two potent and powerful incentives which influence the future conduct or learning of an organism. Roll of honor, prizes, badges and the like are various forms of rewards. Rewards help to 'stamp in' the desired responses. Punishment is supposed to 'stamp out' the S.R connection as suggested by Thorndike (Law of effect). However,

punishment which is based on fear (fear of pain and fear of disgrace) will not only on such of those students who consider that getting reprimanded is shameful. Punishment will be of no consequence on those who consider that to withstand the punishment is heroic. Progressive educational opinion is generally against punishments particularly corporal punishments which degrade the pupil. But, simpler types of punishment like reproof appear to have some value. Such punishments act as deterrents and serve as a form of discipline. But, correction and restitution should be first tried before punishment is resorted to. Among these two viz. reward and punishment which one will prove more effective, mainly depends upon the personality of the receiver as well as that of the giver.

Role of Praise and Blame

When a child is praised at his successes, he is overjoyed. As a result, he works bitter than before following prints must be kept in view while using praise as techniques of motivation.

a) If an organism is praised at every big or small success randomly, he will be addicted to listen the words of praise. As on result, no new behavior is created due to praise
b) Weaker children should be praised even at their small bits of success, while talented children should be praised only when they have really done something very unique
c) Praise technique should be applied according to changing ratio schedule, i.e. sometimes, it should be used and sometimes not and the subject must not know at what time this is to be given

As far as blame is concerned, students are directly blamed for their failures and they are made ashamed. But, excess use of blame as a technique of motivation, may frustrate the child. Following points must be kept in mind before blaming the students on their failures.

a) Positive efforts of child must be praised first before blaming him on his failure
b) Students should not be solely made responsible for their failure. Other related factors and conditions must also be included in the list of factors causing failures in life
c) The language of the blame should not be insetting for students. The self respect of every individual must be recognized.

12.9 ANSWERS TO CHECK YOUR PROGRESS

1.
a) **Positive Transfer**: Learning of one activity sometimes makes the learning of another activity easier.
b) **Negative Transfer**: When previous perform puts hindrance in the performance of the subsequent task.
c) **Zero Transfer**: Previous learning has no effect on the subsequent learning.

2. c) Zero

12.10 LET US SUM UP

Motivation is basic to all behavior including learning. It is concerned with the 'why' of behaviour. Mistakes will occur in plenty and performance will also be poor. The most important reason for the gap between pupil's potential and the current level of achievement lies in the area of motivation. The role of rewards and punishments, praise and blame,

cooperation and competition will enhance the positive behavior of students in the classroom.

12.11 KEY WORDS

EFFECT, READINESS, TRANSFER OF LEARNING, ACHIEVEMENT MOTIVATION, REWARDS, PUNISHMENT, INTRINSIC, EXTRINSIC

12.12 SELF ASSESSMENT QUESTION AND EXERCISE

1. Describe Robert Gagne's Theory of Hierarchical Learning.
2. Discuss the Achievement Motivation.
3. Explain the Role of Rewards and Punishment In Motivation.

12.13. SUGGESTED READINGS

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UNIT XIII - CLASSROOM MANAGEMENT

13.1 INTRODUCTION

In this unit, we can discuss about Classroom Management, Designing Physical Environment of the Classroom, Creating Positive Environment Learning and Classroom Assessment.

13.2 OBJECTIVES

This unit is meant to help you learn the importance of classroom management and assessment. After going through this unit, you will be able to:

- Explain the importance of Classroom Management.
- Discuss the Designing of Physical Environment of the Classroom.
- Explain the Classroom Assessment.

13.3 CLASSROOM MANAGEMENT

Managing the learning environment is both a major responsibility and an on-going concern for all teachers, even those with years of experience. There are several reasons.

In the first place, a lot goes on in classrooms simultaneously, even when students seem to be doing only one task in common. Twenty-five students may all seem to be working on a sheet of math problems. But look more closely: several may be stuck on a particular problem, each for different reasons. A few others have worked only the first problem or two and are now chatting quietly with each other instead of continuing. Still others have finished and are wondering what to do next. At any one moment each student needs something different—different information, different hints, different kinds of encouragement. Such diversity increases even more if the teacher deliberately assigns multiple activities to different groups or

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individuals (for example, if some students do a reading assignment while others do the math problems).

Healthy Classroom Management

Classroom management refers to the wide variety of skill and techniques and that teachers use to keep students organized, orderly, focused, attentive, on task and academically productive during a class. When classroom management strategies are excited effectively, teachers minimize the behaviors that impede learning for both individual students and group of students while minimizing the behaviors that facilitate or enhance learning. Generally speaking, effective teachers tend to display strong classroom-management skills. The interest and the attention of the learners to make them actively participate in all the activities related to classroom activities could be gained only by healthy classroom management.

Entry Routine: It is a technique in which the teacher establish a consistent, daily routine that begins as soon as students entre the classroom like preparing learning materials, making seating arrangements, passing in homework or doing a brief physical warm up activity. This activity can avoid the disorder and squandered time that can characterize the beginning of a class period.

i. Do now written activity: Do now written activity – it is a written activity that students are given as soon as they arrive in the classroom. This technique is intended to get students settled, focused, productive, and prepared for instruction as quick as possible.

ii. Tight transitions: It is a technique in which teachers establish transitions routines that students learn and can execute quickly and repeatedly without much direction from a teacher. This technique helps to maximise instructional time by reducing the delay that might accompany transitions between activities.

iii. Seat signals: it is a technique in which students use nonverbal signals while seated to indicate that they need something such as help with a problem or a restroom break etc.

iv. Applaud up: It is an act of publicly recognizing and praising students who have done something good such as answering a difficult question or helping a peer etc.

v. Nonverbal Interventions: Is when teachers establish eye contact or make gestures that let students know that they are not paying attention or misbehaving.

vi. Positive group correction: It is a quick, affirming verbal reminder that lets a group of students knows what they should be doing.

13.4 DESIGNING PHYSICAL ENVIRONMENT OF THE CLASSROOM

Classroom climate is a product of the interaction, between and among teacher and students and the physical condition of the classroom. The physical conditions of a classroom or any learning environment also exert an influence on the social interaction and learning capabilities of students. The students are not only affected by the psychological climate in the classroom but also affected by the physical conditions in it. For example, the student is put at a disadvantage and his mental health and learning is affected when the classroom is over- crowded, dark and damp. The physical learning environment surely matters a lot in facilitating learning and promotes mental health of the student. Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a

contribution to her or his community. The physical learning environment has something to do with the condition of the classroom and the immediate environment of the learner. Learning environment is defined as the social context, psychological and pedagogical which can affect learning, achievement and attitudes of the students. Learning environment and features that are in it play a major role in improving learning in schools and is identified as major determinants of student learning. Learning environment capable of stimulating students to engage in the learning process and be able to influence the behaviour of students as well as to assist in the development of their skills or cognitive perception. A

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conducive physical learning environment is one that allows maximum interaction between teacher and student and also among students. A conducive physical learning environment is safe, clean and orderly, well ventilated, spacious and adequately lighted, acoustically sound, good air circulation with adequate temperature and other environmental factors which do not disturb the mental health of the child and in turn provides a conducive learning environment. Two major components of the learning environment are physical and psychosocial components (Fraser, 1994 and Kilgour, 2006). Physical component includes all physical aspects such as classrooms, teaching materials, learning facilities, external environment both inside and outside the classroom. Psychosocial component is related to the interaction that occurs between students and students, students with teachers and students with the environment. Both of these components complement each other in creating and shaping the learning environment and affect the learning process that occurs in it.

Benefits of a Well-Designed Classroom

A classroom that has a well-defined physical arrangement and appears organized will promote a positive learning environment. A well-thoughtout physical arrangement is important for any type of special education setting for these reasons:

- Students learn to respect physical boundaries. There are boundaries between students' areas and teacher-only areas as well as boundaries between each of the student's individual work areas. This provides opportunities to teach students to respect other people's spaces and belongings—an important skill in all life settings.
- Students learn to anticipate the specific types of activities that will occur in specific areas of the classroom. This helps students participate more fully in the activity because they will enter the area with the mind-set that corresponds with the anticipated activity. Knowing which activity is next also can ward off misbehavior that often occurs when students are caught off guard or have inaccurate expectations regarding what is about to occur.
- Students will also learn which behaviors are acceptable and expected in each specific location of the classroom and which behaviors are not acceptable or expected in certain other classroom

locations. This, too, is a valuable life lesson that is important at home, in the community, and on the job site.

- Proper room arrangement provides predictability, which has a calming effect on many students. When students are better able to understand their environment and anticipate what is coming next, they tend to be less apprehensive. Their mental states are more conducive to learning new material. A decrease in anxiety typically translates into a decrease in misbehavior as well.
- Your classroom materials are readily accessible. When specific activities happen in specific areas of the classroom, the materials needed for those activities can be located in the area where they will be used, allowing them to be retrieved quickly and easily. This decreases down time and misbehavior and increases productivity.

13.5 CREATING POSITIVE ENVIRONMENT LEARNING / CLASSROOM AMBIENCE

Classroom ambience creates a positive learning environment. Classrooms should be a dynamic and engaging place to be for the learners and also for the teachers to engage in teaching-learning activities. It includes the physical set up and the environment of the classroom. Classroom ambience speaks to the conditions in the classroom. The features of classroom ambience includes the allowance of number of students according to the space provided in for a classroom, arrangements of furniture like sitting and writing desk of the students, position of the tables of the teachers, cupboards, lighting, good ventilation, sound effect, noise control, and the way the space is separated from the “outside” by walls or windows. The ambience is everything about the classroom, and it that light, it can profound effect on the ability of students to learn.

An effective classroom ambience would make the learners feel involved and responsible for their own learning as well as being comfortable enough to actively participate in individual and group activities. A safe and conducive classroom is very essential for the teaching-learning process. It would make the learners comfortable to make learning adventures. Classroom ambience promotes a

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favourable mood or atmosphere in a classroom to ensure an effective teaching learning process to takes place. It is the responsibility of both the management of the schools and the teachers in planning the curriculum, organizing procedures and resources, arranging the environment to maximize efficiency, monitoring student progress and anticipating potential problems.

13.6 CLASSROOM ASSESSMENT

Assessment is a systematic process of gathering information about what a student knows, is able to do, and is learning to do. Assessment information provides the foundation for decision-making and planning for instruction and learning. Assessment is an integral part of instruction that enhances, empowers, and celebrates student learning.

Using a variety of assessment techniques, teachers gather information about what students know and are able to do, and provide positive, supportive feedback to students. They also use this information to diagnose individual needs and to improve their instructional programs, which in turn helps students learn more effectively.

Assessment must be considered during the planning stage of instruction when learning outcomes and teaching methods are being targeted. It is a continuous activity, not something to be dealt with only at the end of a unit of study. Students should be made aware of the expected outcomes of the course and the procedures to be used in assessing performance relative to the outcomes. Students can gradually become more actively involved in the assessment process in order to develop lifelong learning skills.

Evaluation refers to the decision making which follows assessment. Evaluation is a judgment regarding the quality, value, or worth of a response, product, or performance based on established criteria and curriculum standards. Evaluation should reflect the intended learning outcomes of the curriculum and be consistent with the approach used to teach the language in the classroom. But it should also be sensitive to differences in culture, gender, and socio-economic background. Students should be given opportunities to demonstrate the full extent of their knowledge, skills, and abilities. Evaluation is also used for reporting

progress to parents or guardians, and for making decisions related to such things as student promotion and awards.

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Define Assesment.

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…………………………………………………………………………

13.7 ANSWERS TO CHECK YOUR PROGRESS

1. Assessment is a systematic process of gathering information about what a student knows, is able to do, and is learning to do. Assessment information provides the foundation for decision-making and planning for instruction and learning. Assessment is an integral part of instruction that enhances, empowers, and celebrates student learning.

13.8 LET US SUM UP

The effective management of the classroom and the classroom ambience was discussed so that the importance and need could be revealed as it influences the achievement of the students in the classroom.

13.9 KEY WORDS

POSITIVE ENVIRONMENT

13.10 SELF ASSESSMENT QUESTION AND EXERCISE

1. Define Assessment.

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2. Explain the importance of Classroom Management.
3. Discuss the Designing of Physical Environment of the Classroom.
4. Explain the Classroom Assessment.

13.11 SUGGESTED READINGS

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UNIT-XIV - SPECIAL EDUCATION

14.1 INTRODUCTION

In this unit, we will know about Readiness for learning, Role of maturation in learning, Special Education, Gifted Children, Cultural Deprivation and Physically Challenged.

.14.2 OBJECTIVES

This unit is meant to help you learn the importance of classroom management and assessment. After going through this unit, you shall be able to:

- Explain about Gifted Children.

14.3 READINESS FOR LEARNING

Learning readiness is the physical, motor, socio-emotional, behavioral, linguistic, and cognitive skills indicating preparedness to receive formal educational instruction. he terms learning readiness and school readiness were derived from educational reforms and the outcomes from model early childhood programs.

There are four characteristics that a student should posses in order to learn effectively from classroom instruction:

1. The Disposition For Learning
2. Adequate Cognitive Functioning
3. Adequate Knowledge Base For The Content Being Presented
4. Adequate Study Skills And Strategies

Even when these four characteristics are accessible, however, learning is not likely to take place unless circumstances in which the individual finds himself/herself make it possible for the individual to apply them. (These

"circumstances" could be personal situations, geographic location, curriculum offerings, quality of instruction, etc.)

14.4 ROLE OF MATURATION IN LEARNING

There are three factors underlying the process of learning:

(i) Acquisition:

Acquisition is helpful in modifying the behaviour. It is the acquisition which determines the meaning, nature and scope of learning. It makes the learner mentally prepared to learn. **(ii) Retention:** Without retention, the learner fails to express the acquired trait. **(iii) Recall:** It is only potential recall through which we form opinion about the maturity and learning behaviour of the learner.

14.5 SPECIAL EDUCATION FOR EXCEPTIONAL CHILDREN

Special education is that education which is given to handicapped or gifted children but not to the majority of an average or normal children. The term special is defined by Webster as distinguished by some unusual quality, uncommon extraordinary & additional i.e. employed for a certain purpose in addition to the ordinary special education, in fact, is a special form of education with its own tools, techniques, research facilities & efforts, all focused upon improving instructional arrangement & procedures for evaluating & meeting the learning needs of exceptional children. Special education in its simple meaning stands for a type of education that is quit specific and special in nature. Thus through its name it is capable of reminding us that it is capable of reminding us that it is sum what different from the education meant for the general population of the students, it would be worthwhile for to take into consideration the view points of some

well known thinkers and educationists in this field to understand the meaning , nature and purpose of the term special education.

Children differ from each other in a variety of ways. They differ from each other physically, intellectually, socially and emotionally. Generally, such differences are of little importance. At times, however, some children deviate from the “average” or “normal” to such a degree that they need special attention. These are exceptional children. In the words of Barbe, “exceptional” refers to children who differ from the average to an extent that their differences warrant some type of special school adjustment, either within the regular classroom or in special classes. It includes both those children whose differences make them unable to perform up to the level of the average as well as those whose differences allow them to perform above the average.

14.6 INTELLECTUALLY GIFTED CHILDREN

Someone who shows, or has the potential for showing, an exceptional level of performance in one or more areas of expression.

Characteristics of Gifted Students

- Learn Quickly and Easily
- Able to use abstract thought and critical reasoning
- Exhibit Verbal Proficiency
- Have a high energy level
- Become bored and frustrated
- Dislike repetition
- Receive negative adult attitudes to smartness
- Dominate Discussions

- Difficulty with listening skills
- Become frustrated with inactivity and lack of challenge
- Be extremely persistent
- Concentrate on tasks of high interest for extended periods of time

Check your Progress

Notes: a**)** Write your answer in the space given below:

b) Compare your answer with the one given at the end of the unit.

1. Define Special Education.

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2. List out any five characteristics of Intellectually gifted.

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14.7 MENTAL RETARDATION

A developmental disability characterized by significantly sub average general intellectual functioning, with concurrent deficits in adaptive behavior. The causes are many and include both genetic and environmental factors as well as interactions between the two. In most cases the diagnosis is not formally made until children have entered into school settings. In the preschool years, the diagnosis is more likely to be established by evidence of delayed maturation in the areas of sensory-motor, adaptive, cognitive, social, and verbal behaviors. By definition, evidence of mental retardation must exist prior to adulthood, where vocational limitation may be evident, but the need for supervision or support may persist beyond the usual age of social emancipation.

Definition: Mental retardation is a developmental disability that first appears in children under the age of 18. It is defined as an intellectual functioning level (as measured by standard tests for intelligence quotient) that is well below average and significant limitations in daily living skills (adaptive functioning). Limitations in adaptive behavior must also be demonstrable in order to satisfy diagnostic criteria for mental retardation. This criterion is important because certain artistic or other gifts may not be revealed by formal IQ testing, and different levels of learning difficulty may be accentuated by the demands of specific environments. Outside such environments, an individual may navigate a normal course in life.

14.8 CULTURAL DEPRIVATION

Cultural deprivation is a theory in sociology where a person has inferior norms, values, skills and knowledge. The theory states that people of the working class experience cultural deprivation and this disadvantages them, as a result of which the gap between classes increases.

The theory claims that the middle class gains cultural capital as the result of primary socialization, while the working class does not. Cultural capital helps the middle class succeed in society because their norms and values facilitate educational achievement and subsequent employability. Working class members of society that lack cultural capital do not pass it on to their children, perpetuating the class system. Middle-class children's cultural capital allows them to communicate with their middle-class teachers more effectively than working-class children and this contributes to social inequality.

NOTES

Bourdieu claimed that state schools are set up to make everybody middle class, although only the middle class and some high achieving working class have the cultural capital to achieve this.[3] From a Marxist perspective cultural deprivation observes that the resources available to the working class are limited and that working-class children enter school less-well prepared than others.

14.9 PHYSICALLY CHALLENGED

Physical Impairment by virtue of its definition may be understood as a certain type of dysfunction of disturbances in the body resulting into its malfunctioning & there by making one physically disabled or handicapped on one account or the other. In this was physical disability represents a condition of such physical impairment of a child that interferes with his /her ability to participate in many activities e.g., routine school, home or community activities. Orthopaedic impairments in general constitute as one of the most common or more prevalent physical impairment in human beings.

TVER & TVER (1991):- An orthopaedic impairment is an impairment that interferes with normal functioning of bones, joints or muscles. HUNT & MARSHAll (2002):- orthopaedic impairment causing physical disability refers to a condition that incapacitates the skeletal, muscular or neurological system of the body to some degree. Kirk, Gallagher & Anastasiow(1993):- The term orthopaedic impairment generally refers to conditions of the muscular or skeletal system & sometimes to physically disability condition of the nervous system.

Functional Limitations Caused By Orthopaedic Impairment:

1. Poor muscle control.

2. Weakness & Fatigue.

3. Difficulty in working, talking, climbing, steps, seeing, speaking or grasping.

4. Inability in using the limbs.

5. Difficulty in moving from one place to another.

6. Paralysis/ total lack of muscular control in part or most of the body.

7. Difficulties & inabilities faced in motor functioning due to smallness of limbs

14.10 ANSWERS TO CHECK YOUR PROGRESS

1. Special education is a profession with its own history, cultural practices, tools and research base, focused on the learning needs of exceptional children and adults. But at the level, where exceptional children most meaningfully and frequently contact it, special education is an individually planned, specialized, intensive, goal directed instruction. When practiced most effectively and ethically special education is also characterized by the use of research based teaching method, the application of which is guided by direct and frequent measures of students performance.

2. a) Learn Quickly and Easily b) Able to use abstract thought and critical reasoning c) Exhibit Verbal Proficiency d) Have a high energy level e) Become bored and frustrated

14.11 LET US SUM UP

Learning readiness is the physical, motor, socio-emotional, behavioral, linguistic, and cognitive skills indicating preparedness to receive formal educational instruction. he terms learning readiness and school readiness

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were derived from educational reforms and the outcomes from model early childhood programs.

14.12 KEY WORDS

READINESS FOR LEARNING, PHYSICALLY CHALLENGED

14.13 SELF ASSESSMENT QUESTION AND EXERCISE

5. What do you mean by readiness for learning.

6. Explain about Gifted Children.

14.14. SUGGESTED READINGS

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Distance Education – CBCS – (2018-19 Academic Year Onwards)

MODEL QUESTION PAPER

B.Sc(Psychology).,

11944 - EDUCATIONAL PSYCHOLOGY

Time : 3 Hours **Marks :75**

PART – A (10X 2 = 20 Marks)

I. Answer all questions.

1. Define Education Psychology.
2. What is the meaning of development?
3. Define individual difference.
4. What do you mean by recall and recognition?
5. Write short note on Culture-Fair Tests.
6. Differentiate 'intelligence' from 'intellect'.
7. List out the characteristics of personality.
8. Define Exceptional Children.
9. What are the effects of punishment in the classroom?
10. Define Special Education.

PART – B (5X 5 = 25 Marks)

II . Answer all questions choosing either (a) or (b).

11. a. What are the relationship between Psychology and Education?

(or)

b. Explain the Role of Rewards and Punishment in Motivation.

12. a. What are the effects of creating positive environment in the classroom?

(or)

b. Explain jean Piaget's theory of development?

13. a. Explain the importance Readiness for learning.

(or)

b. Differentiate unifactor and multifactor theories of intelligence with suitable example.

14. a. Briefly Explain the Children's Apperception Test (CAT).

(or)

b. Elucidate Gifted Children.

15. a. Explain the importance of culture, community and gender.

(or)

b. Explain the importance of Cognitive and Social Learning theories.

PART – B (3X10 = 30 Marks)

III. Answer any 3 out of 5 questions.

16. Elucidate the theories of learning Plateau of learning.
17. Describe in detail about Psychodrama technique.
18. Describe Robert Gagne's Theory of Hierarchical Learning.
19. Discuss the Designing of Physical Environment of the Classroom and its importance.
20. Explain about Gifted Children.